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VOLUME, YIELD, AND STAND TABLES FOR SECOND-GROWTH SOUTHERN PINES

U. S. DEPARTMENT OF AGRICULTURE
MISCELLANEOUS PUBLICATION No. 50
WASHINGTON, D. C. SEPTEMBER, 1929

VOLUME, YIELD, AND STAND TABLES FOR SECOND-GROWTH SOUTHERN PINES

Prepared by Office of Forest Experiment Stations, Forest Service, and Cooperating Agencies

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INTRODUCTION

The volume, yield, and stand tables presented in this publication have been worked up from data gathered in a region-wide study of the rate of growth of the principal southern pines. Funds for beginning this study were furnished by the Southern Pine Association, of New Orleans, La., through the National Research Council. Plans for the study were outlined by Raphael Zon, of the National Research Council, and the Forest Service.

The bulk of the field work was done by the Southern Forest Experiment Station which, however, received generous cooperation from the State foresters of the Southern States. For this cooperation grateful acknowledgment is made.

Office computations and the preparation of all tables were in the hands of the Forest Service under the general direction of Donald Bruce. The text was prepared by R. D. Forbes and E. L. Demmon, former and present directors, respectively, of the Southern Forest Experiment Station.

Special acknowledgment for services rendered in connection with the study is due to Austin Cary and L. H. Reineke of the Forest Service, to W. R. Hine, formerly of the Forest Service and now superintendent of forestry in Louisiana, and to R. M. Brown of the University of Minnesota, also a former member of the Forest Service. In addition, it may be stated that without the hearty cooperation of a large number of individuals and organizations widely scattered throughout the South and elsewhere, which has been freely given, this publication would not have been possible.

The region covered by the growth study comprises pine forests in 12 Southern States, from Virginia south to Florida, west to Texas, and north into Oklahoma, Arkansas, and Missouri. Throughout this region extensive measurements were made of individual trees and pure even-aged stands of second-growth loblolly pine (*Pinus taeda*), longleaf pine (*P. palustris*), shortleaf pine (*P. echinata*), and slash pine (*P. caribaea*). Stands originating after hurricanes, fires, or insect killings in the virgin forest, and essentially similar to those following clear cuttings or abandonment of farm lands, were regarded as second-growth. Scattered trees left in early cuttings, on the other hand, were not included, since their form differs from that of true second-growth trees.

The present publication is intended primarily for the use of foresters familiar with the terminology and the technic of forest mensuration and will be of value mainly in the examination and estimation of large tracts of forest land. Tables primarily applicable to farm woodlands, detailed explanations of the application of the tables, and elementary discussion of methods of study have been omitted from this publication but may be found in another bulletin of the Department of Agriculture now in preparation.[1]

The methods used during the present study in both field work and computations are substantially those recommended by a joint committee from the Society of American Foresters, the

[1] Forbes, R. D. and Bruce, D. second-growth southern pines: their economic importance and rate of growth in full stands. [Unpublished manuscript.]

Association of State Foresters, and the Forest Service.[2] In many respects, particularly in office methods, these methods were in fact the foundation on which the committee built its standardization. The method followed in preparing the yield tables has been elsewhere described in detail.[3]

APPLICATION OF VOLUME TABLES

CORRECTION FOR LOCAL USE.

Separate volume tables were not made for different sites in the wide territory from Virginia to Texas, or for different form classes. The following methods are suggested for testing the applicability of the volume tables in any given locality, and for making any corrections which appear from such tests to be necessary.

The dimensions of 20 to 25 felled trees in the locality are measured after the manner employed in the construction of the tables, care being taken to select these trees over a good range of diameter[4] and height, and to observe the identical limits of utilization shown in the tables for the unit concerned (cubic feet, cords, or board feet by the International ⅛-inch rule, the Scribner rule, or the Doyle rule). The volumes of these trees are computed by the standard methods, and the deviation of each from the tabular volume of a tree of the same diameter and height is then computed. It will be necessary to interpolate for tenths of an inch in diameter and single feet in height in obtaining the tabular volumes. The deviations are expressed as percentages of the tabular volumes, and their average is compared with the average deviation of the trees used in constructing the table, which appears in the footnotes for each table.

The total volume of the local trees is also compared with the total of the tabular values, to obtain the aggregate difference. The mere fact that this aggregate difference is small and compares favorably with the aggregate difference used in constructing the table (likewise given in the footnotes for each table) does not prove anything, as Bruce[5] has pointed out; large positive deviations among small trees may offset large negative deviations among large trees, for example. But if the average deviation of the local trees is not appreciably greater than that of the table, and if their aggregate difference does not exceed two and one-half times the average deviation of the table divided by the square root of the number of trees used in the

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[2] COMMITTEE ON STANDARDIZATION OF VOLUME AND YIELD TABLES. METHODS OF PREPARING VOLUME AND YIELD TABLES. Jour. Forestry 24: 653–666. 1926.

[3] BRUCE, D. A METHOD OF PREPARING TIMBER-YIELD TABLES. Jour. Agr. Research 32: 543–557, illus. 1926.

[4] In checking the board-foot tables, no trees under 10 inches in diameter should be used.

[5] BRUCE, D. A PROPOSED STANDARDIZATION OF THE CHECKING OF VOLUME TABLES. Jour. Forestry, 18: 544–548, illus. 1920.

test, correction for locality is unnecessary. If, on the other hand, the local trees consistently differ from the tabular values, the table should be corrected for local use.

To prepare a local volume table[6] from the 20 to 25 trees above referred to, percentage relations, averaged for each inch-class represented by the local trees, should be established as between the local and tabular values and curved over diameter. If these relations are not uniform for trees of all height classes, separate curves may be necessary for tall, medium, and short trees. The final smoothed percentages should then be applied to the tabular values, making a new table for local use.

CORRECTION OF VOLUME TABLES FOR DIFFERENT LIMITS OF UTILIZATION.

The limits of utilization upon which the tables are based do not coincide with actual utilization in all parts of the region. Where they differ, correction of the tabular values is necessary.

For volumes in cubic feet or cords it is sufficient to measure the length of a few felled trees (the 20 or 25 used in the test just described will do very well) to both the limit used in the table and that set up by the conditions of actual utilization. By subtraction the lengths of the section to be deducted or added are then obtained, and their volumes calculated in the proper unit. These will vary somewhat with the breast-high diameter of the trees, and possibly with their height as well; smoothed values should be obtained by curving the raw data. Corresponding deductions or additions are then made in the regional tables. For volumes in board feet it is necessary to go through the more laborious process of scaling the trees to both limits and obtaining by subtraction the board-foot differences.

Correcting board-foot tables in which merchantable heights are expressed in number of logs in this way may easily lead to errors in their use. Suppose, for example, that the top limit for use in calculating board feet by the International rule is 8 inches instead of 5. Then trees that contain four logs to the 5-inch top, and appear in the regional table here given as 4-log trees, drop to perhaps 3-log trees to an 8-inch top. If such trees are tallied in the field as 3-log trees, their volumes as taken from the revised tables will then be much too low, unless the headings for height have also been revised. This can of course be done, but perhaps the easier way, if relatively small use is to be made of the revised tables, is to continue to tally these trees in the field as 4-log trees—of course, estimating height to a 5-inch top. The unused volume, between the 8-inch and 5-inch tops, can be cared for by a percentage deduction, as for cull. It is a

[6] A volume table based on diameter alone, disregarding heights, is often called a local volume table; this is not the meaning in the present instance.

blunder to attempt to allow for the 1-log difference in height by simply using the volume in the unrevised regional table for a 3-log tree; the table itself should always be corrected for differences in utilization.

APPLICATION OF YIELD TABLES

DETERMINATION OR IDENTIFICATION OF SITE.

Sites in this study have been designated by the height attained on each by the average dominant tree at the arbitrarily chosen age of 50 years. It has been found that such heights are the most reliable and convenient means of identifying the productive capacity of forest land. In order, therefore, to apply the tables to any particular site, it is necessary to identify the site from the height of dominant trees now growing upon it. The following method of identification is recommended:

(1) Lay out a sample plot, of any convenient shape but containing from 100 to 300 trees, in a well-stocked portion of an even-aged stand growing on the site in question. Very young stands (under 25 years) are somewhat more erratic. They are therefore less desirable than older stands and can well be avoided. Turpentined stands should also be avoided. Old-field stands are not so reliable as those on cut-over land, because the high quality of the site apparent in the first decade or two deteriorates in time.

(2) Tally the breast-height diameters of all trees on the plot above 1.5 inches by two classes—dominant trees (including codominants) and others.

(3) Obtain from this tally the average diameter for the dominant stand, using the basal-area method.

(4) Measure a sufficient number of heights, corresponding to the full range of diameters of both dominant trees and others, to construct a satisfactory curve of height over diameter. (Actual plotting in the field and construction of the curve at that time will be the best guide to what is a sufficient number.)

(5) From the height-diameter curve obtain the height of the average dominant tree, using the average diameter determined by step 3.

(6) Determine the age of about six trees (more if there is considerable variation) among the average dominants, and strike an average. The additions that must be made to the age as determined at breastheight or on the stump are given under the definition of "Age," page 15.

(7) On the height-growth classification graph for the proper species (figs. 1 to 4) plot the height of the average dominant tree of the sample stand over its age. These graphs are a series of curves, one for each 10-foot site index, showing the height of the average dominant tree at various ages. The curve nearest

the plotted point may ordinarily be used as the 10-foot site index of the stand examined, although the index can of course be interpolated to the nearest foot.

(8) If possible obtain a similar figure (interpolated to nearest foot) for several stands on the site to be identified, and assume that the average of these measurements is the correct site index.

A less accurate method of site determination is the selection of about a dozen trees covering the diameter range of the dominant trees in the stand whose site is being investigated, upon which computations are based as with the dominant trees in the plot method. No satisfactory method is yet known for identifying site from trees in a virgin forest or scattered individuals on cut-over land.

If the stands examined for site determination are mixtures (less than 80 per cent one species), each species must be treated separately.

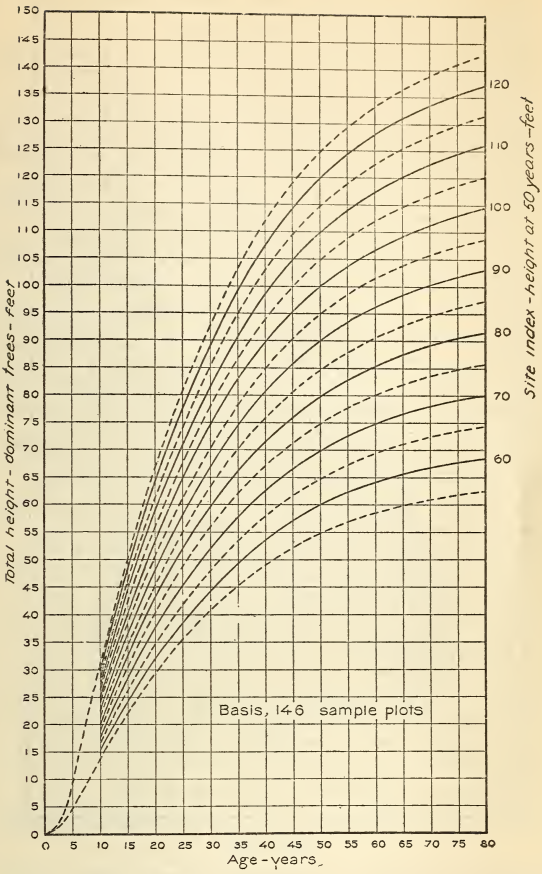

FIGURE 1.—Height-growth classification for second-growth loblolly pine. The values in Table 33 have been read from these curves

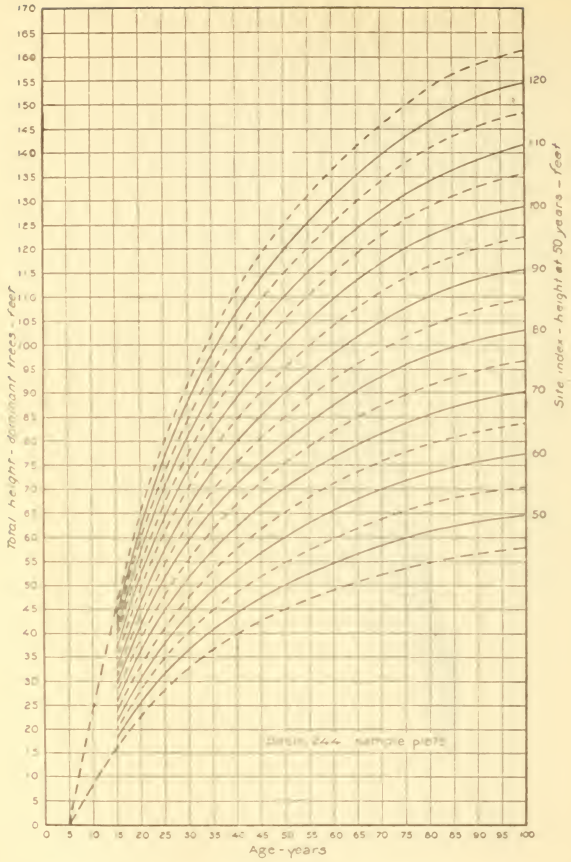

FIGURE 2.—Height-growth classification for second-growth longleaf pine. The values in Table 65 have been read from these curves

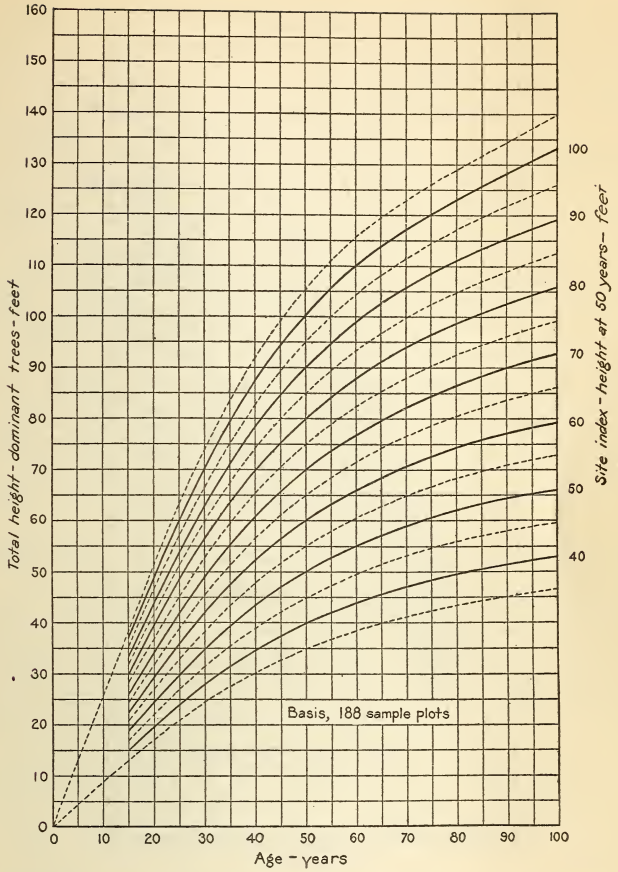

FIGURE 3.—Height-growth classification for second-growth shortleaf pine. The values in Table 97 have been read from these curves

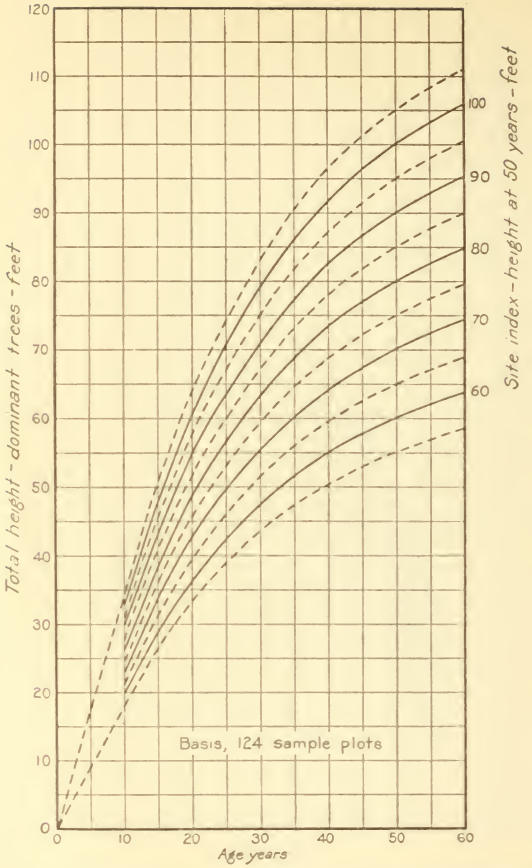

FIGURE 4.—Height-growth classification for second-growth slash pine. The values in Table 129 have been read from these curves

CORRECTION OF YIELD TABLES FOR LOCAL USE.

As earlier stated, the yield tables are based upon a study of well-stocked stands of the four species throughout the greater part of the range of southern pines. The results of this study indicated that geographical location had no consistent effect upon the yields of stands of equal site quality. It, therefore, follows that the productive capacity of any pine tract whose site is correctly identified may be determined from the tables, regardless of its geographical location.

It is believed that local yield tables will not be appreciably more correct than the regional yield tables, particularly if based on any fewer data than the regional tables. The construction of local tables will involve a very considerable expenditure of time and money. However, if a check of the volume tables shows the need for correction on account of local peculiarities in the form of individual trees, the yield tables should be correspondingly corrected. The general method recommended for correcting for different limits of utilization, described below, should be equally satisfactory in correcting for locality.

A further check of the applicability of the yield tables to any given locality may be made through a comparison of the actual measured yields of 20 or 25 local plots with corresponding yields in the tables. The comparison would follow the same lines as in checking the volume tables for local use. It will be seen from the footnotes to Tables 64, 96, 128, and 160 that the plots entering into the yield tables deviated much more widely from the tabular values than did the tree volumes.

CORRECTION OF YIELD TABLES FOR DIFFERENT LIMITS OF UTILIZATION.

If the yield tables are desired for conditions of utilization other than those assumed in their preparation, correction must be made for the actual limit of use. Probably as accurate a method of doing this as is ordinarily necessitated is based on the average breast-high diameter of the stand 2 inches diameter breast high and over, and the number of merchantable trees per acre. There are two distinct steps, which are described in the following example:

Assume that the loblolly yield table for board feet by the international rule is to be corrected, like the volume table in an earlier illustration, for an actual utilization to 8 inches in the top, rather than to the 5 inches assumed in the tables. The yield for a 50-year stand on a 90-foot site is wanted. An understanding of the stand tables, presented under a later heading, is assumed.

From the loblolly tables it appears that this stand contains 220 trees 1.6 inches in diameter and up, and that the average breast-high diameter is 12 inches. The percentage stand table

for loblolly shows that only 70 per cent of these trees are 9.6 inches diameter breast high or larger; a 10-inch tree being the smallest likely to contain at least a 16-foot log 8 inches inside the bark at the small end. (No tree without a 16-foot log, 5 inches inside the bark at the small end, contributes to the tabular yields in board feet by the international rule.) Whether 10 inches is the correct minimum diameter on the site in question must be determined from a field study of felled trees on this site; it is assumed as correct in the present example. Then the volume of all 7, 8, and 9 inch trees included in the yields given in the board-foot table to a 5-inch top must be subtracted from the yield at 50 years on the 90-foot site. The stand table shows that about 5 per cent of the trees in this stand are 7 inches, 8 per cent are 8 inches, and 10 per cent are 9 inches, 11, 18, and 22 being the absolute numbers. At least an approximation of the number of logs to a 5-inch top in such trees will have been obtained in the course of the field study just referred to or may be estimated from the total-height tables. Their total volume may be calculated from the volume tables. If the number of logs were two in each case, the total volume for the 3-inch classes would be 1,844 board feet. This, then, would be the deduction necessary for trees which, under the actual limit of utilization, contain no merchantable logs.

The lessened volume per tree of the remaining 169 trees may be calculated roughly by assuming an average deduction, based on the tree of median diameter among them. From the stand table it will appear that about half of the 169 trees 10 inches and over are above 13 inches in diameter, and half are below that size. Assuming that investigation has shown that a 13-inch tree has, by the international rule, 10 board feet less to an 8-inch top than to a 5-inch top, the deduction for 169 trees would then be 1,690 feet, which added to the 1,844 board feet in the trees below 10 inches gives a total deduction of 3,534 board feet. The yield of 37,500 board feet for a 50-year stand on a 90-foot site then becomes 34,000 board feet (rounded), when an 8-inch top limit is used in place of a 5-inch.

DETERMINATION OF NORMALITY AND PREDICTION OF FUTURE YIELDS.

The yield tables should never be used as a substitute for an actual cruise of an existing stand. That a stand is of a certain age and occupies a certain site by no means proves that its yield per acre will be the same as that shown in the tables for that age and site. This is of course because the stands vary widely in stocking from the 100 per cent stocking represented by the tables.

By actual measurement of a sample plot or strip it will be possible to establish a percentage relationship between the actual values and the tabular values. The two most satis-

factory means of estimating stocking are by total volume or by basal area. Of these two, the basal-area method requires much less computation and for practical purposes is as accurate. By this method the relation between the actual total basal area per acre and the corresponding table values for the particular site and age establishes the percentage of normality of the stand. No quicker or more satisfactory method of judging normality than the basal-area method has as yet been found. Attempting to establish normality on the basis of completeness of crown cover, total number of trees, number of dominant trees, average diameter, or any other easily obtained criterion is for many reasons far from satisfactory.

If the stand is normal to-day, its yield 10 or 20 years in the future (but hardly longer) may be predicted from the yield tables simply by adding the 10 or 20 years to the present age of the stand and reading from the table the yield at that age on the site as identified.

Prediction of yield from an abnormal or understocked stand is not quite so reliable. It is possible that a stand not now normal tends to become normal as it grows older, but the rate of progress toward normality, if any, awaits investigation and at present can not be safely predicted. For this reason the future yield of a stand known to be understocked at present can only be conservatively predicted from the tables by assuming that its present percentage of understocking will remain constant. If a sample plot has but 50 per cent of the basal area of a normal plot, all that may be counted upon 10 or 20 years hence is 50 per cent of the yield shown in the tables for that species and site at the ages then attained.

For example, if it be assumed that a tract of 50-year-old loblolly pine of 750 acres, variously stocked, is to be cut at three different periods in the future, the situation might shape up as follows:

Number of acres	Site index	Normality	Cutting age (years)
250	110	90	60
250	90	85	70
250	70	80	80

According to the yield tables, an acre of normal loblolly pine, site index 110, will yield at 60 years of age 63,000 board feet, international rule. As this particular tract is only 90 per cent normal the standard yield must be reduced by 10 per cent, which brings it down to 56,700 feet. Similarly the yield for the

second tract of 47,000 board feet at 70 years must be reduced 15 per cent, which will amount to 39,950 feet. The third tract 30 years from now will yield 80 per cent of 32,000 board feet or 25,600 feet. The following tabulation gives the results for the entire area:

Cutting age	Yield per acre	Area	Total yield
	Board feet	*Acres*	*Board feet*
60 years	56,700	250	14,175,000
70 years	39,950	250	9,987,500
80 years	25,600	250	6,400,000
Total		750	30,562,500

APPLICATION OF STAND TABLES

It has been found that, regardless of age and site, fully stocked southern pine stands of the same average diameter have the same range of diameters and the same percentage of trees in any diameter class. A stand table (Table 161) has therefore been prepared to show, for each of the four species, the percentage of trees at and above 2 inches, 4 inches, 6 inches, etc., contained in stands of various average diameters. In order to learn from the stand tables the number of trees of any particular diameter in a fully stocked stand on a given site and at a given age, it is only necessary to obtain from the yield tables for the specified age and site the diameter of the average tree and the total number of trees. Both figures should be for the entire stand, i. e., all trees 2 inches in diameter breast high and over.

As an illustration of the process, suppose that the number of 4 and 5 inch trees is to be determined in a fully stocked loblolly pine stand, 25 years old, on a 90-foot site. Table 34 shows that the diameter breast high of this stand is 7 inches, and Table 36 that the total number of trees is 540. Table 161 gives the percentage of trees 4 inches or larger in a 7-inch stand as 90, and of trees 6 inches or larger as 66. The difference, or 24 per cent, is the proportion of 4-inch and 5-inch trees; 24 per cent of 540 is 130. The number of trees in the 4-inch and 5-inch classes is therefore 130.

Tables 162, 163, 164, and 165, giving the absolute number of trees at and above various 2-inch limits on average sites at various ages, have been prepared by this method by interpolation in the percentage stand tables. If the number of trees in a single inch class, or above odd inches, is desired, interpolation in these tables is again necessary. Because the intervals between

values in the stand tables, particularly between the horizontal values, change rapidly, interpolation is best accomplished from a curve.

It should be clearly understood that the percentages given in the stand tables do not hold for any stands that are not normally stocked. That too absolute a reliance should not be placed on the tables even in normal stands is suggested by the fact that the tables give data for 2-inch intervals only.

DEFINITION AND EXPLANATION OF TERMS USED

GENERAL TERMS.

Age.—The average age of the dominant trees in a stand is taken as the age of the stand. Average age is based on ring counts made on several dominant trees covering a good range of sizes.

Ring counts may be made on stumps or by taking increment cores at breastheight. In figuring total age, 3 years must be added to the breastheight age of loblolly, shortleaf, and slash and 7 years to that of longleaf. If age determinations are made at a stump height of 1 foot, 2 years is added for total age of loblolly, shortleaf, and slash and 5 years for total age of longleaf.

Average diameter, breast high.—The breast-high diameter of the tree of average basal area.

Average dominant tree.—Dominant trees include the codominants also. The average dominant is a tree having a basal area equal to the average basal area of the dominant stand.

Cords.—Cords are of 4-foot wood. Converting factors from cubic feet to cords are given for trees of different diameters in Table 171.

Diameter class.—Each inch-class includes diameters 0.4 inch or less below and 0.5 inch or less above the even inch; for example, the 9-inch class comprises all trees 8.6 to 9.5 inches, inclusive.

Height, total.—Total height is reckoned to the extreme tip of the tallest branch, not simply to the upper limit of utilization.

One and one-fourth logs.—The smallest tree considered in this bulletin to have a board-foot volume contains one 16-foot log to the top diameter specified (5 inches inside the bark in the international tables, 6 inches in the Scribner tables, and 7 inches in the Doyle tables). Since all 1-log trees would have the same volume, regardless of diameter at breastheight, the shortest trees for which volumes are given contain 1¼ logs. This value is the midpoint between 1 and 1½ logs; 1½ logs is the lower limit of the 2-log class. Volumes for trees intermediate in log length between those shown in the tables may of course be obtained by interpolation.

Site index.—Sites are designated by the height attained on each by the average dominant tree in a 50-year-old stand; this height

is called the site index. Thus a site with an index of 70 feet produces dominant trees averaging 70 feet in height at 50 years. The average site for each species encountered by the field crews in the course of the present study had the following site index: Loblolly, 92 feet; long leaf, 71; short leaf, 70; and slash, 81.

Yields.—The yields in any unit are based on the same limits of utilization as shown in the volume tables for that unit. By all trees 2 inches diameter breast high and over is meant all those 1.6 inches and over; by all trees 4 inches diameter breast high and over, those 3.6 inches and over; and similarly for all diameters named.

LOG RULES.

Doyle rule.—The Doyle rule, which even in virgin timber gives an overrun of 10 to 25 per cent, does not begin to give the actual contents of most second-growth trees and stands. Volumes and yields by the Doyle rule are included in the present publication purely because this rule is the only one familiar to many southern lumbermen.

Scribner rule.—The Scribner rule, while not widely used in the South, is employed widely in other sections of the country, and at present is used by the Forest Service in its timber sales in modified form (decimal C). Although fairly satisfactory for virgin timber, it fails to indicate the true contents of small second-growth timber by a considerable margin. An overrun of 10 to 20 per cent in second-growth timber is common, but this varies with size of log; the overrun for 8 and 10 inch logs may be as high as 40 per cent.

International rule.—The international rule is given in Table 173; its derivation is described in Graves' Forest Mensuration.[7] The rule is believed to approximate the actual quantities of lumber, without overrun, which may be sawed out with good equipment, proper care, and market conditions prevailing at least in those portions of the South where virgin timber is small or not sufficient in quantity to compete substantially with second growth.

TYPE OF STAND.

Pure stand.—A pure stand is one in which 80 per cent or more of the trees are of a single species.

Even-aged stand.—An even-aged stand is one in which the oldest and youngest trees do not differ in age by more than 10 years.

Normal or fully stocked stand.—A normal stand is one which is producing wood at the fullest capacity, in terms of cubic feet, for that species, age, climate, and soil. The number of trees per

[7] GRAVES, H. S. FOREST MENSURATION. 458 p., illus. New York and London. 1906.

acre necessary for wood production at this rate varies within wide limits, as shown in the footnotes to Tables 64, 96, 128, and 160.

The plots measured as a basis for the yield tables in this study were all normal, or fully stocked. They were selected in the field because the number of trees per acre and their distribution appeared satisfactory, and because there were no large openings between the crowns of the trees. Final judgment on their normality or fullness of stocking was based on comparisons of their total basal areas (sum of the cross-section areas of all trees at breastheight) with the average of all similar plots measured. Those found to be abnormal by this test (see the references cited in footnotes 2 and 3) were eliminated from subsequent computations.[8] Because of frequent ground fires, hog damage, and lack of sufficient seed trees, normal stands are comparatively rare and represent but a fraction of the second-growth stands in the South. In selecting plots some leeway as to the meaning of full stocking was necessary in order that a sufficient number might be found without unreasonable expense. Since the tables give the average figures for the plots studied, they do not, strictly speaking, represent maximum possible volume. The additional fact that the great majority of the stands chosen had at one time or another been burned over (few unburned areas are known) and had developed naturally, should also assure higher yields than are shown in the tables, when protection and management are introduced.

[8] The elimination of abnormal plots explains the discrepancy in the number of plots given as the basis for the height-growth classification graphs, Figures 1, 2, and 4, and the number of plots listed in Tables 64, 96, and 160.

VOLUME TABLES FOR SECOND-GROWTH SOUTHERN PINES

INDEX

Title of table	Loblolly pine	Longleaf pine	Shortleaf pine	Slash pine
	Table No.	*Table No.*	*Table No.*	*Table No.*
Total volume in cubic feet, peeled wood	1	9	17	25
Merchantable volume in cubic feet, peeled wood	2	10	18	26
Volume in cords, rough (unpeeled) wood	3	11	19	27
Volume in cords, peeled wood	4	12	20	28
Volume in board feet, international ¼-inch rule:				
For total height in feet	5	13	21	29
For number of 16-foot logs	6	14	22	30
Volume in board feet, Scribner decimal C rule	7	15	23	31
Volume in board feet, Doyle rule	8	16	24	32

Loblolly Pine

Total Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet											Basis
	10	20	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet											
												Trees
2	0.1	0.1	0.2	0.3								
3	.2	.3	.5	.7	0.8							
4		.6	.9	1.2	1.6	1.9	2.2					5
5		1.0	1.5	2.0	2.6	3.1	3.6					28
6			2.3	3.0	3.8	4.5	5.2	5.9	6.7			38
7			3.1	4.1	5.2	6.2	7.2	8.3	9.3	10.3		61
8			4.1	5.5	6.9	8.3	9.7	11.1	12.5	14.0	15.5	53
9			5.2	7.0	8.8	10.8	12.5	14.2	16.0	17.9	19.8	30
10			6.5	8.8	11.0	13.2	15.4	17.7	19.9	22.1	24.4	17
11				11	13	16	19	22	24	27	30	21
12				13	16	19	22	26	29	32	35	10
13					19	23	26	30	34	38	42	16
14					22	26	30	35	40	44	48	14
15					25	30	35	40	45	50	56	9
16					28	34	40	46	51	57	63	11
17						38	44	51	58	64	70	14
18						42	49	56	64	71	78	3
19						47	54	62	70	78	85	6
20						51	59	68	76	85	94	3
21							64	74	83	92	102	1
22							70	80	90	100	110	1
23							75	86	96	107	118	
24							80	92	103	115	126	1
25							86	98	110	122	135	
26							91	104	117	130	143	1
27							97	110	124	138	151	2
Basis			5	47	67	60	51	44	50	15	6	345

Volume includes peeled stump, stem, and top. Average deviation of individual tree volumes from tabular values, ±7.7 per cent aggregate difference, −0.22 per cent.
Block indicates extent of observed data.

Table 2

Loblolly Pine

Merchantable Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet									Basis
	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet									
										Trees
4	0.54	0.87	1.30	1.55	1.96					5
5	1.07	1.60	2.18	2.58	3.08					28
6	1.69	2.48	3.22	3.88	4.55	5.28	5.95			38
7	2.40	3.48	4.52	5.48	6.48	7.45	8.30	9.55	10.7	61
8	3.25	4.69	6.10	7.48	9.00	10.3	11.9	13.3	14.6	53
9	4.27	6.10	7.90	9.90	11.3	13.3	15.0	16.9	19.0	30
10	5.47	7.74	9.90	11.5	14.3	16.7	18.8	21.3	23.8	17
11		9.70	12.0	14.3	17.4	20.2	23.0	26.0	28.8	21
12		11.5	14.7	17.3	20.9	24.2	27.8	31.0	34.3	10
13			17.4	20.8	24.8	28.5	32.6	36.7	40.2	16
14			20.4	24.5	29.0	33.3	38.0	42.5	47.0	14
15			23.5	28.3	33.4	38.7	43.6	48.8	53.9	9
16			27.1	32.3	37.9	43.9	49.8	55.4	60.8	11
17				36.2	42.4	49.3	55.8	62.2	67.9	14
18				40.3	47.2	54.9	62.0	69.0	75.0	3
19				44.8	52.0	60.4	68.3	76.0	82.8	6
20				49.0	57.0	66.0	74.8	83.3	90.8	3
21					62.4	72.0	81.3	90.5	98.9	1
22					67.7	77.8	87.9	97.8	107	1
23					73.0	83.8	94.8	105	115	
24					78.5	89.8	101	113	124	1
25					84.2	95.9	108	120	132	
26					89.9	102	115	128	141	1
27					95.5	108	122	136	149	
Basis	5	47	67	60	51	44	50	15	6	345

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, +7.7 per cent aggregate difference, −0.22 per cent.

Block indicates extent of observed data.

Loblolly Pine

Volume in Cords

[Rough wood]

Diameter breast high, inches	Total height in feet									Basis
	30	40	50	60	70	80	90	100	110	
	Volume in cords									
										Trees
4	0.0090	0.0140	0.0190	0.0238	0.0279	------	------	------	------	5
5	.0158	.0240	.0304	.0368	.0427	0.0484	------	------	------	28
6	.0235	.0341	.0445	.0531	.0615	.0690	0.0769	------	------	38
7	.0342	.0474	.0609	.0727	.0846	.0950	.105	0.118	------	61
8	.0445	.0620	.0799	.0960	.113	.128	.143	.158	0.174	53
9	.0575	.0794	.102	.124	.144	.163	.183	.204	.225	30
10	.0715	.0994	.127	.151	.177	.201	.226	.255	.280	17
11	------	.122	.154	.184	.215	.244	.276	.310	.340	21
12	------	.147	.183	.219	.258	.290	.330	.370	.450	10
13	------	------	.217	.257	.302	.342	.390	.433	.473	16
14	------	------	.252	.300	.350	.398	.451	.502	.548	14
15	------	------	.290	.347	.401	.459	.519	.572	.624	9
16	------	------	.329	.395	.454	.520	.589	.647	.706	11
17	------	------	------	.445	.510	.588	.660	.727	.795	14
18	------	------	------	.495	.568	.655	.734	.810	.882	3
19	------	------	------	.545	.628	.721	.810	.892	.974	6
20	------	------	------	.598	.691	.788	.886	.975	1.07	3
21	------	------	------	------	.753	.858	.964	1.06	1.16	1
22	------	------	------	------	.817	.928	1.04	1.15	1.26	1
23	------	------	------	------	.882	.999	1.12	1.24	1.35	------
24	------	------	------	------	.947	1.07	1.20	1.33	1.46	1
25	------	------	------	------	1.01	1.14	1.28	1.42	1.56	------
26	------	------	------	------	1.08	1.22	1.36	1.51	1.66	1
27	------	------	------	------	1.15	1.29	1.45	1.60	1.77	2
Basis	5	47	67	60	51	44	50	15	6	345

Volume includes stem with bark above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, −0.22 per cent.

Block indicates extent of observed data.

Table 4

Loblolly Pine

Volume in Cords

[Peeled wood]

Diameter breast high, inches	Total height in feet									Basis
	30	40	50	60	70	80	90	100	110	
	Volume in cords									
										Trees
4	0.00643	0.0106	0.0148	0.0188	0.0230					5
5	.0210	.0184	.0242	.0298	.0355	0.0411				28
6	.0185	.0275	.0358	.0430	.0510	.0585	0.0670			38
7	.0260	.0377	.0490	.0593	.0705	.0812	.0905	0.105		61
8	.0348	.0497	.0650	.0792	.0950	.110	.127	.141	0.154	53
9	.0448	.0637	.0833	.103	.122	.139	.158	.179	.199	30
10	.0570	.0800	.103	.123	.145	.170	.198	.221	.245	17
11		.100	.126	.150	.178	.209	.239	.269	.298	21
12		.120	.151	.180	.215	.248	.284	.320	.365	10
13			.179	.214	.253	.294	.334	.375	.415	16
14			.209	.250	.295	.340	.388	.432	.479	14
15			.240	.290	.338	.392	.444	.495	.549	9
16			.275	.331	.385	.448	.504	.560	.620	11
17				.374	.433	.500	.568	.630	.692	14
18				.416	.483	.559	.630	.700	.768	3
19				.459	.535	.614	.695	.775	.845	6
20				.501	.585	.670	.660	.848	.921	3
21					.638	.730	.828	.920	1.01	1
22					.690	.790	.897	.998	1.09	1
23					.746	.850	.963	1.07	1.17	
24					.800	.910	1.03	1.15	1.26	1
25					.857	.975	1.10	1.23	1.35	
26					.913	1.04	1.17	1.30	1.43	1
27					.974	1.10	1.24	1.38	1.53	2
Basis	5	47	67	60	51	44	50	15	6	345

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, −0.22 per cent.

Block indicates extent of observed data.

Loblolly Pine

Volume in Board Feet

International (⅛-inch) Rule

[Total height]

Diameter breast high, inches	Total height in feet									Basis
	40	50	60	70	80	90	100	110	120	
	Volume in board feet									
										Trees
6	16	17	18	21						2
7	18	20	23	28	35	43				35
8	20	26	32	40	50	61	70			52
9	26	34	44	54	69	83	98			30
10		44	59	72	92	110	130			17
11			76	94	119	142	166			21
12			96	119	149	177	207	240		10
13			118	144	180	214	252	289		16
14			142	172	213	253	298	340		14
15			167	201	247	295	346	392		9
16				227	282	338	395	446		11
17				256	320	385	446	504		14
18				287	359	432	499	564		3
19				320	400	480	555	629		6
20				354	442	530	614	693		3
21				388	486	582	675	760		1
22				424	530	637	739	829		1
23				461	577	695	803	899		
24				499	627	752	868	970		1
25				537	677	810	935	1,044		
26				576	727	870	1,001	1,116		1
27				618	780	932	1,068	1,190		2
Basis	4	30	51	49	45	50	14	6		249

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent. Stump height 1 foot, top diameter inside bark 5 inches.

Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±12.6 per cent; aggregate difference, −0.9 per cent.

Block indicates extent of observed data.

Table 6

Loblolly Pine

Volume in Board Feet

International (⅛-inch) Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs						Basis
	1¼	2	3	4	5	6	
	Volume in board feet						
							Trees
6	17	23	31	40			2
7	18	28	43	58			35
8	20	34	55	77			52
9	22	42	68	97	124		30
10	24	48	83	118	155		17
11	26	56	98	142	187	230	21
12	28	63	113	167	219	272	10
13	30	72	130	194	255	317	16
14	32	81	149	222	292	363	14
15		90	168	251	333	414	9
16		98	189	282	375	468	11
17		108	210	213	418	524	14
18		120	233	347	464	583	3
19		131	256	382	511	643	6
20			279	419	562	705	3
21			304	458	614	770	1
22			331	500	669	839	1
23			357	542	725	907	
24			386	584	784	975	1
25				628	844	1,046	
26				674	906	1,119	1
27				720	969	1,190	2
Basis	32	77	48	53	35	4	249

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height 1 foot; top diameter inside bark 5 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±7.2 per cent; aggregate difference, +0.86 per cent.
Block indicates extent of observed data.

Loblolly Pine

Volume in Board Feet

Scribner Decimal C Rule

[Total height]

Diameter breast high, inches	Total height in feet										Basis
	40	50	60	70	80	90	100	110	120	130	
	Volume in board feet, in tens										
											Trees
7											17
8	0	0	2	2	3	4	4				58
9	1	2	3	4	5	6	7				31
10	2	4	5	6	7	8	10				22
11	3	5	6	8	9	11	13	14			24
12	4	6	8	10	12	14	16	18			12
13		7	10	12	14	17	20	22	24		21
14		9	12	14	17	20	23	26	28		23
15		11	14	17	21	24	28	30	32		15
16		12	16	20	24	28	32	35	38	42	14
17		14	19	23	27	32	36	40	44	48	19
18			21	26	31	36	41	46	50	54	6
19			24	30	35	40	46	51	56	61	10
20			27	33	39	45	51	57	62	68	8
21				37	44	50	57	63	69	75	2
22				41	48	55	62	70	76	84	2
23				45	52	60	68	76	84	91	1
24				49	58	66	76	84	92	100	2
25				53	62	72	82	91	100	108	
26				58	68	78	89	98	108	118	1
27				63	74	85	96	107	118	129	3
28				68	80	92	104	116	127	139	
29				73	86	99	112	125	137	150	
Basis		22	57	65	51	68	20	7		1	291

Stump height, 1 foot; top diameter inside bark, 6 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 6-inch top. Average deviation of individual tree volumes from tabular values, ±11.2 per cent; aggregate difference, −0.01 per cent.

Block indicates extent of observed data.

Table 8

Loblolly Pine

Volume in Board Feet

Doyle Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs						Basis
	1¼	2	3	4	5	6	
	Volume in board feet						
							Trees
8	11	16					
9	13	22	33				12
10	17	27	43	63	80		17
11	20	33	54	78	101		21
12	23	39	67	97	125	155	10
13	27	46	80	116	151	187	16
14	30	53	93	137	178	222	14
15	34	60	108	158	208	260	9
16	38	67	124	182	241	301	11
17		74	141	208	275	343	14
18		82	158	235	313	390	3
19			178	265	353	440	6
20			198	296	398	493	3
21			222	330	444	548	1
22			245	365	492	607	1
23			270	402	540	669	
24			296	439	592	735	1
25			323	479	644	803	
26			352	521	698	874	1
27			380	565	754	949	2
Basis	17	34	26	54	11		142

Stump height, 1 foot; top diameter inside bark, 7 inches. Scaled in 16-foot log lengths, with 0.3 foot trimming allowance, and additional top section to a 7-inch top. Average deviation of individual tree volumes from tabular values, ±10 per cent; aggregate difference, +0.24 per cent.

Block indicates extent of observed data.

Longleaf Pine

Total Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet											Basis
	10	20	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet											
												Trees
2	0.1	0.2	0.2	0.3								
3	.2	.3	.5	.7	0.9							
4		.6	.8	1.2	1.6	2.0						14
5		.8	1.3	2.0	2.5	3.1	3.8					69
6		1.2	2.1	3.0	3.8	4.7	5.6	6.3				95
7		1.6	2.8	4.1	5.4	6.7	7.8	8.8	9.8			88
8			3.8	5.3	7.2	8.8	10.3	11.8	13.2			89
9				6.8	9.1	11.2	13.2	15.2	17.2			45
10				8.3	11.2	13.8	16.5	19.1	21.6	24.3	26.9	35
11					13	17	20	23	26	30	33	27
12					16	20	24	28	32	35	39	11
13					18	23	28	32	36	41	45	9
14					21	26	31	36	42	47	52	5
15					23	29	35	41	46	52	58	15
16					26	32	39	45	52	58	64	9
17					28	35	42	50	57	64	71	11
18								54	62	69	77	1
Basis			10	78	118	127	84	73	27	6		523

Volume includes peeled stump, stem, and top. Average deviation of individual tree volumes from tabular values, ±7.2 per cent; aggregate difference, −0.31 per cent. Block indicates extent of observed data.

Table 10

Longleaf Pine

Merchantable Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet										
											Trees
4	0.4	0.6	1.0	1.4	1.8						14
5	.5	1.0	1.7	2.2	2.8	3.5					69
6	.8	1.6	2.6	3.4	4.3	5.2	5.8				95
7	1.1	2.3	3.5	4.8	6.2	7.3	8.4	9.3			88
8		3.0	4.6	6.5	8.2	9.7	11.2	12.7			89
9			5.7	8.4	10.4	12.4	14.5	16.5			45
10			7.2	10.3	13.0	15.6	18.2	20.8	23.5	26.0	35
11				12.4	15.8	19.0	22.3	25.2	28.8	31.8	27
12				14.5	18.7	22.6	26.5	30.0	34.1	37.8	11
13				16.8	21.5	26.2	30.7	35.0	39.6	44.0	9
14				19.2	24.4	28.8	34.8	40.0	45.4	50.2	5
15				21.7	27.4	33.3	39.0	45.0	50.8	56.5	15
16				24.2	30.2	37.0	43.3	50.0	56.3	62.6	9
17				26.8	33.2	40.7	47.6	55.0	61.8	69.0	11
18				29.3	36.1	44.3	52.0	60.0	67.5	75.5	1
Basis		10	78	118	127	84	73	27	6		523

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.2 per cent; aggregate difference, −0.31 per cent.

Block indicates extent of observed data.

Volume in Cords

[Rough wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cords										
											Trees
4	0.00721	0.0107	0.0165	0.0220	0.0279						14
5	.00814	.0165	.0258	.0338	.0413	0.0492					69
6	.0123	.0238	.0365	.0490	.0595	.0702	0.0841	0.0960			95
7	.0164	.0320	.0485	.0665	.0830	.0960	.110	.125			88
8	.0210	.0410	.0618	.0865	.107	.126	.140	.158			89
9	.0264	.0509	.0760	.108	.133	.158	.178	.200			45
10			.0915	.129	.163	.194	.223	.247	0.278	0.303	35
11				.155	.196	.233	.270	.303	.339	.371	27
12				.181	.229	.275	.318	.357	.400	.439	11
13				.208	.263	.317	.366	.414	.463	.509	9
14				.238	.297	.359	.416	.472	.526	.579	5
15				.266	.331	.401	.465	.532	.592	.650	15
16				.295	.365	.445	.515	.590	.657	.723	9
17				.326	.400	.487	.567	.651	.722	.797	11
18				.358	.435	.532	.617	.711	.789	.869	1
Basis		10	78	118	127	84	73	27	6		523

Volume includes stem with bark above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.2 per cent; aggregate difference, −0.31 per cent.

Block indicates extent of observed data.

Table 12

Longleaf Pine

Volume in Cords

[Peeled wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cords										
											Trees
4	0.0047	0.00714	0.0118	0.0162	0.0212						14
5	.00568	.0118	.0194	.0255	.0317	0.0397					69
6	.00889	.0178	.0284	.0382	.0473	.0571	0.0640				95
7	.0122	.0245	.0380	.0525	.0667	.0788	.092	0.109			88
8		.0318	.0486	.0690	.0870	.105	.118	.138			89
9			.0602	.0870	.107	.130	.152	.173			45
10			.0734	.107	.134	.162	.189	.214	0.244	0.269	35
11				.127	.163	.196	.230	.262	.298	.328	27
12				.149	.192	.232	.272	.309	.351	.390	11
13				.172	.220	.268	.313	.358	.406	.452	9
14				.197	.250	.304	.357	.408	.463	.514	5
15				.221	.278	.340	.398	.458	.518	.576	15
16				.246	.308	.377	.442	.510	.574	.640	9
17				.272	.338	.413	.485	.560	.630	.704	11
18				.298	.367	.452	.529	.612	.688	.768	1
Basis		10	78	118	127	84	73	27	6		523

Volumbe includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from their tabular values, ±7.2 per cent; aggregate difference, −0.31 per cent.

Block indicates extent of observed data.

Longleaf Pine

Volume in Board Feet

International (⅛-inch) Rule

[Total height]

Diameter breast high, inches	Total height in feet									Basis
	40	50	60	70	80	90	100	110	120	
	Volume in board feet									
										Trees
6	6	12	16	21						17
7	8	16	24	32	39					77
8	10	22	34	46	57					89
9	13	30	47	64	81	95				45
10	17	40	63	85	107	127	145			35
11			82	110	137	162	185			27
12			100	134	168	199	227			11
13			120	161	200	237	271			9
14			137	183	228	270	310	346		5
15			152	203	253	301	345	385		15
16			169	226	281	334	384	430		9
17			187	250	311	367	421	471		11
18			207	274	338	398	457	511		1
Basis	3	47	113	83	73	27	5			351

One-eighth saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.

Stump height 1 foot, top diameter inside bark 5 inches. Scaled in 16-foot log lengths, with 0.3 foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±13.4 per cent, aggregate difference, +0.91 per cent.

Block indicates extent of observed data.

Table 14

Longleaf Pine

Volume in Board Feet

International (⅛-inch) Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs						Basis
	1¼	2	3	4	5	6	
	Volume in board feet						
							Trees
6	17	22					17
7	19	29	44				77
8	21	37	59	82			89
9	23	45	75	106	137		45
10	26	53	91	129	168	210	35
11	29	61	107	154	201	248	27
12	32	69	124	180	235	291	11
13		78	140	207	270	336	9
14		86	158	234	306	382	5
15		94	177	263	345	432	15
16		103	197	293	387	484	9
17		112	218	324	431	539	11
18		121	239	356	475	595	1
Basis	63	134	86	60	8		351

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height 1 foot, top diameter inside bark 5 inches. Scaled in 16-foot log lengths, with 0.3 foot trimming allowance, and additional top section to a 5-inch top.
Average deviation of individual tree volumes from tabular values, ±6.2 per cent; aggregate difference, +0.43 per cent.
Block indicates extent of observed data.

Longleaf Pine

Volume in Board Feet

Scribner Decimal C Rule

[Total height]

Diameter breast high, inches	Total height in feet								Basis
	40	50	60	70	80	90	100	110	
	Volume in board feet, in tens								
									Trees
7				1	1	2			63
8		1	2	3	4	5	6		101
9	1	3	4	5	6	7	8		70
10	2	4	6	7	8	10	11		53
11	3	5	7	9	10	12	14	16	40
12	4	7	9	11	13	15	17	19	21
13	5	8	10	13	15	18	20	23	16
14	6	9	12	15	18	21	24	26	13
15	7	10	14	17	20	24	27	30	16
16		11	15	19	23	26	30	34	9
17		13	17	21	25	30	34	38	10
18		14	19	24	28	33	38	42	1
19		16	21	26	31	37	42	47	
20		17	23	29	34	40	46	52	
Basis	9	50	139	101	82	26	6		413

Stump height, 1 foot; top diameter inside bark, 6 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance and additional top section to a 6-inch top. Average deviation of individual tree volumes from tabular values, ±10.1 per cent; aggregate difference, −0.6 per cent.

Block indicates extent of observed data.

Table 16

Longleaf Pine

Volume in Board Feet

Doyle Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs					Basis
	1¼	2	3	4	5	
	Volume in board feet					
						Trees
8	12	17	23	29		4
9	13	23	35	47		32
10	15	29	47	65		33
11	16	35	59	83		27
12	17	41	71	102		11
13	19	47	84	122		9
14	20	54	98	143	187	5
15	22	60	112	164	217	15
16	23	67	127	188	250	9
17		74	144	214	284	11
18		83	160	240	323	1
Basis	21	62	45	26	3	157

Stump height 1 foot, top diameter inside bark 7 inches. Scaled in 16-foot log lengths, with 0.3 foot trimming allowance, and additional top section to a 7-inch top. Average deviation of individual tree volumes from tabular values, ±7.8 per cent; aggregate difference, +0.03 per cent.

Block indicates extent of observed data.

Shortleaf Pine

Total Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet: 10	20	30	40	50	60	70	80	90	100	Basis
	Volume in cubic feet										
											Trees
2	0.1	0.1	0.2	0.3							
3	.2	.3	.5	.7	0.9						
4		.6	1.0	1.3	1.8	2.1					7
5		1.0	1.6	2.2	2.8	3.4	4.1				26
6		1.4	2.3	3.2	4.1	5.0	6.0	7.0			43
7		2.0	3.1	4.3	5.6	7.0	8.3	9.6	11.0		40
8		2.5	4.0	5.6	7.3	9.2	10.9	12.8	14.5	16.3	34
9		3.2	5.0	7.0	9.2	11.4	13.9	16.2	18.5	20.8	26
10			6.1	8.6	11.3	14.0	17.1	20.0	22.8	25.7	17
11				10	14	17	20	24	27	31	19
12				12	16	20	24	28	32	37	4
13				14	18	23	28	33	38	43	4
14					21	26	32	38	44	50	9
15					24	30	37	44	51	57	21
16					27	34	42	49	57	65	9
17					30	38	47	55	65	73	11
18					33	42	52	61	72	82	6
19						46	57	68	80	90	4
20						51	63	75	88	100	3
21							69	82	96	110	1
22							75	89	105	120	
23							81	97	114	130	
24							87	104	123	141	
25							94	112	132	152	
26							100	120	142	164	1
Basis		1	22	44	49	53	54	35	21	6	285

Volume includes peeled stump, stem, and top. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, −0.09 per cent. Block indicates extent of observed data.

Table 18

Shortleaf Pine

Merchantable Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet: 20	30	40	50	60	70	80	90	100	Basis
	Volume in cubic feet									
										Trees
4	0.63	0.98	1.33	1.74	2.18					7
5	.99	1.56	2.15	2.79	3.41	410				26
6	1.43	2.24	3.15	4.05	5.02	6.02	6.95			43
7	1.98	3.05	4.33	5.52	6.95	8.32	9.60	10.9		40
8	2.56	4.00	5.61	7.20	9.14	11.0	12.7	14.5	16.4	34
9	3.28	5.04	7.04	9.18	11.4	13.7	16.0	18.6	20.7	26
10		6.15	8.59	11.3	13.9	16.8	19.9	23.0	25.5	17
11			10.2	13.4	16.6	20.3	23.9	27.9	30.8	19
12			12.0	15.9	19.7	24.1	28.5	33.0	36.7	4
13			13.7	18.4	22.8	28.1	33.2	38.7	43.0	4
14				21.1	26.4	32.5	38.3	44.8	50.0	9
15				24.0	30.1	37.0	43.8	51.0	57.5	21
16				27.1	34.0	41.9	49.5	57.7	65.0	9
17				30.4	38.3	46.9	55.3	64.7	73.3	11
18				33.7	42.8	52.0	61.5	72.0	81.8	6
19					47.0	57.2	68.0	80.0	90.2	4
20					51.3	62.8	74.9	88.2	99.8	3
21						68.7	82.4	96.8	110	1
22						74.7	89.9	106	120	
23						80.8	97.7	115	131	
24						87.2	105	123	142	
25						93.5	113	132	153	
26						100	121	142	165	1
Basis	1	22	44	49	53	54	35	21	6	285

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, −0.09 per cent.

Block indicates extent of observed data.

Shortleaf Pine

Volume in Cords

[Rough wood]

Diameter breast high, inches	Total height in feet: 20	30	40	50	60	70	80	90	100	Basis
	Volume in cords									
										Trees
4	0.00974	0.0148	0.0196	0.0256	0.0295					7
5	.0148	.0229	.0306	.0390	.0465	0.0528				26
6	.0207	.0320	.0432	.0550	.0665	.0755	0.0850			43
7	.0275	.0424	.0575	.0733	.0890	.103	.114	0.125		40
8	.0350	.0540	.0745	.0950	.115	.133	.150	.163	0.176	34
9	.0440	.0665	.0924	.118	.143	.166	.190	.208	.225	26
10		.0810	.111	.143	.172	.203	.233	.256	.279	17
11			.131	.170	.206	.244	.280	.309	.337	19
12			.155	.200	.245	.289	.330	.367	.402	4
13			.179	.234	.285	.339	.388	.432	.475	4
14				.269	.329	.392	.449	.502	.552	9
15				.307	.374	.450	.515	.579	.635	21
16				.345	.424	.510	.585	.659	.725	9
17				.386	.476	.572	.660	.749	.821	11
18				.427	.530	.638	.738	.842	.921	6
19					.588	.708	.820	.940	1.03	4
20					.647	.781	.907	1.04	1.15	3
21						.860	.996	1.15	1.26	1
22						.939	1.09	1.26	1.39	
23						1.02	1.18	1.37	1.52	
24						1.10	1.29	1.48	1.65	
25						1.18	1.39	1.60	1.79	
26						1.27	1.50	1.72	1.94	1
Basis	1	22	44	49	53	54	35	21	6	285

Volume includes stem with bark above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, —0.09 per cent.

Block indicates extent of observed data.

Table 20

Shortleaf Pine

Volume in Cords

[Peeled wood]

Diameter breast high, inches	Total height in feet									Basis
	20	30	40	50	60	70	80	90	100	
	Volume in cords									
										Trees
4	0.00750	0.0115	0.0158	0.0210	0.0259					7
5	.0115	.0179	.0249	.0324	.0398	0.0466				26
6	.0162	.0252	.0352	.0455	.0559	.0670	0.0772			43
7	.0216	.0335	.0470	.0598	.0750	.0912	.104	0.118		40
8	.0273	.0427	.0597	.0770	.0973	.117	.135	.154	0.174	34
9	.0334	.0527	.0741	.0967	.120	.146	.170	.195	.219	26
10		.0635	.0895	.118	.146	.179	.208	.239	.267	17
11			.105	.140	.174	.212	.249	.286	.319	19
12			.124	.163	.204	.250	.293	.340	.379	4
13			.143	.189	.237	.290	.341	.397	.444	4
14				.217	.271	.332	.392	.457	.515	9
15				.246	.309	.379	.448	.520	.590	21
16				.277	.349	.428	.505	.590	.666	9
17				.309	.390	.480	.566	.660	.749	11
18				.341	.432	.532	.630	.737	.839	6
19					.476	.589	.696	.816	.927	4
20					.521	.645	.767	.900	1.02	3
21						.703	.840	.986	1.12	1
22						.767	.915	1.07	1.23	
23						.829	.993	1.17	1.33	
24						.892	1.07	1.26	1.44	
25						.956	1.15	1.35	1.56	
26						1.02	1.23	1.45	1.68	1
Basis	1	22	44	49	53	54	35	21	6	285

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.7 per cent; aggregate difference, —0.09 per cent.

Block indicates extent of observed data.

Shortleaf Pine

Volume in Board Feet

International (⅛-inch) Rule

[Total height]

Diameter breast high, inches	Total height in feet: 40	50	60	70	80	90	100	110	Basis
	Volume in board feet								
									Trees
6	11	13	15	18					8
7	14	18	24	30					30
8	18	26	38	50	64				33
9	22	37	53	73	95	118			26
10		50	72	97	125	154			17
11		66	93	123	154	187			19
12			115	148	183	219			4
13			140	177	216	255			4
14			162	205	249	292			9
15			184	234	284	334	383		21
16			210	267	324	380	436		9
17			233	299	364	429	493		11
18			254	331	407	483	558		6
19				365	453	541	627		4
20				411	506	599	690	780	3
21					560	664	767	870	1
22					620	736	849	960	
23					689	815	936	1,055	
24					753	891	1,025	1,155	
25					810	965	1,116	1,263	
26					870	1,044	1,212	1,378	1
Basis	5	34	50	55	35	21	6		206

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height, 1 foot; top diameter inside bark, 5 inches. Scaled in 16-foot log lengths with 0.3 foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±11.3 per cent; aggregate difference, +0.10 per cent.
Block indicates extent of observed data.

Table 22

Shortleaf Pine

Volume in Board Feet

International (⅛-inch) Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs						Basis
	1¼	2	3	4	5	6	
	Volume in board feet						
							Trees
6	16	22	28				8
7	18	30	44				30
8	20	38	60	82			33
9	22	45	76	106			26
10	25	53	93	131	174		17
11	27	62	112	157	209		19
12	29	70	130	186	246		4
13	31	79	149	216	285		4
14	33	88	169	247	327		9
15	35	97	189	280	372		21
16		107	210	314	418	520	9
17		117	233	350	468	582	11
18		128	256	389	521	650	6
19		140	282	431	578	723	4
20		151	310	475	639	800	3
21			340	523	701	880	1
22			372	571	768	965	
23			405	622	838	1, 054	
24			439	675	912	1, 147	
25				729	989	1, 243	
26				785	1, 068	1, 343	1
Basis	33	51	57	44	20	1	206

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height, 1 foot; top diameter inside bark, 5 inches. Scaled in 16-foot log lengths with 0.3 foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±7 per cent; aggregate difference, +0.57 per cent.
Block indicates extent of observed data.

Shortleaf Pine

Volume in Board Feet

Scribner Decimal C Rule

[Total height]

Diameter breast high, inches	Total height in feet									Basis
	30	40	50	60	70	80	90	100	110	
	Volume in board feet, in tens									
										Trees
7					1	1	2			21
8		1	1	2	3	4	5			55
9	1	2	3	4	5	6	8	10		58
10	3	4	5	6	8	9	11	13		37
11		5	6	8	10	12	14	16	18	49
12		6	8	10	12	14	17	20	22	26
13		8	10	12	14	17	20	23	26	23
14		10	12	14	17	20	23	27	30	28
15		11	14	16	20	23	27	31	34	35
16			16	19	22	26	30	35	39	13
17			18	21	25	30	35	40	44	15
18			20	24	28	33	39	45	50	9
19			22	27	32	37	44	50	56	4
20			25	30	36	42	49	56	62	3
21				33	39	46	54	62	69	1
22				37	44	51	59	68	76	1
23				40	48	56	66	75	84	
24				44	52	61	72	82	92	1
25				48	57	66	78	90	99	
26				52	62	72	85	98	108	1
27				56	67	78	92	105	119	
28				61	72	84	98	115	130	
29				66	77	91	106	125	141	
30				70	83	97	115	135	151	
Basis		3	26	100	127	84	32	8		380

Stump height, 1 foot; top diameter inside bark, 6 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance and additional top section to a 6-inch top. Average deviation of individual tree volumes from tabular values, ±9.8 per cent; aggregate difference, −0.4 per cent.

Block indicates extent of observed data.

Table 24

Shortleaf Pine

Volume in Board Feet

Doyle Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs						Basis
	1¼	2	3	4	5	6	
	Volume in board feet						
							Trees
8	11	20	33				3
9	12	24	42				19
10	13	29	50	73			17
11	14	34	60	86			19
12	16	38	70	103	135		4
13	18	45	83	122	161		4
14	20	53	98	144	191		9
15	22	62	115	171	227		21
16	24	71	135	199	264		9
17	26	81	156	232	307	384	11
18	28	91	178	265	354	443	6
19		103	201	301	402	503	4
20		115	225	338	452	568	3
21			252	378	505	634	1
22			279	419	561	704	
23			308	464	620	776	
24			338	513	690	861	
25			377	574	773	964	
26			422	642	867	1,085	1
Basis	14	29	44	32	12		131

Stump height 1 foot, top diameter inside bark 7 inches. Scaled in 16-foot log lengths, with 0.3 foot trimming allowance, and additional top section to a 7-inch top. Average deviation of individual tree volumes from tabular values, ±8.1 per cent; aggregate difference, +0.43 per cent.

Block indicates extent of observed data.

Slash Pine

Total Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet											Basis
	10	20	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet											
												Trees
2	0.1	0.1	0.2	0.2								
3	.1	.3	.4	.6	0.7							
4		.5	.8	1.2	1.6	1.9	2.3					8
5		.9	1.4	2.0	2.6	3.2	3.8	4.3				20
6		1.3	2.0	2.8	3.7	4.6	5.5	6.4				30
7		1.8	2.8	3.9	5.1	6.3	7.7	9.0	10.1			42
8		2.4	3.7	5.1	6.7	8.3	10.2	12.0	13.6	15.1		19
9			4.7	6.5	8.5	10.5	12.9	15.2	17.3	19.2	21.3	14
10				8.0	10.5	13.0	16.0	18.8	21.3	23.6	25.9	24
11				10	13	16	19	22	25	28	31	19
12				11	15	19	22	26	30	33	36	23
13					17	22	26	30	34	38	42	21
14					20	25	30	34	39	43	48	14
15					23	28	34	39	44	49	54	12
16					25	32	38	44	49	55	60	14
17						35	42	48	55	61	67	5
18						39	46	53	60	67	74	2
19						43	51	59	66	74	81	1
20						46	55	64	72	80	88	
21						50	60	69	78	87	95	1
Basis			9	28	42	42	25	50	65	8		269

Volume includes peeled stump, stem, and top. Average deviation of individual tree volumes from tabular values, ±7.6 per cent; aggregate difference, −0.64 per cent.
Block indicates extent of observed data.

Table 26

Slash Pine

Merchantable Volume in Cubic Feet

[Peeled wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cubic feet										
											Trees
4	0.5	0.8	1.2	1.5	1.8	2.3					8
5	.7	1.2	1.7	2.3	3.0	3.7	4.3				20
6	.9	1.6	2.4	3.2	4.2	5.2	6.2				30
7	1.3	2.2	3.3	4.3	5.8	7.2	8.5	10.0			42
8	1.7	2.9	4.3	5.8	7.5	9.4	11.2	13.0	15.0		19
9		3.8	5.4	7.3	9.6	12.0	14.2	16.3	18.4	20.4	14
10			6.7	9.1	11.9	14.8	17.5	19.9	22.3	25.0	24
11			8.1	11.0	14.4	17.7	21.0	23.8	26.4	29.7	19
12			9.7	13.0	17.0	20.8	24.6	27.8	30.8	34.7	23
13				15.3	19.9	24.2	28.3	32.1	35.5	40.2	21
14				17.8	22.8	27.7	32.3	36.7	40.5	46.2	14
15				20.3	25.8	31.3	36.5	41.5	46.0	52.0	12
16				22.8	29.0	35.2	40.9	46.7	51.8	58.0	14
17					32.3	39.2	45.5	52.0	57.8	64.3	5
18					35.7	43.3	50.3	57.4	64.0	71.0	2
19					39.2	47.5	55.3	62.9	70.4	77.7	1
20					42.8	51.8	60.5	68.5	76.7	84.3	
21					46.4	56.4	65.9	74.4	83.5	91.0	1
Basis		9	28	42	42	25	50	65	8		269

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.6 per cent; aggregate difference, −0.64 per cent.

Block indicates extent of observed data.

Slash Pine

Volume in Cords

[Rough wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cords										
											Trees
4	0.00923	0.0148	0.0195	0.0265	0.0325	0.0389					8
5	.0118	.0185	.0272	.0367	.0470	.0572	0.0660				20
6	.0153	.0248	.0365	.0489	.0637	.0786	.0915	0.108			30
7	.0192	.0325	.0477	.0637	.0828	.103	.120	.141			42
8	.0234	.0417	.0602	.0802	.105	.132	.151	.177	0.200		19
9		.0525	.0742	.0998	.130	.161	.188	.217	.241	0.270	14
10			.0898	.121	.156	.194	.225	.260	.286	.324	24
11			.107	.145	.185	.228	.267	.308	.335	.383	19
12			.124	.170	.218	.263	.310	.358	.390	.444	23
13				.199	.250	.303	.360	.410	.450	.508	21
14				.229	.288	.347	.408	.465	.513	.573	14
15				.259	.325	.391	.459	.521	.578	.641	12
16				.290	.364	.438	.512	.580	.641	.715	14
17					.407	.487	.568	.643	.710	.790	5
18					.458	.538	.623	.708	.784	.868	2
19					.490	.590	.684	.777	.860	.948	1
20					.532	.645	.748	.845	.940	1.03	
21					.575	.700	.814	.918	1.02	1.11	1
Basis		9	28	42	42	25	50	65	8		269

Volume includes stem with bark above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.6 per cent; aggregate difference, −0.64 per cent.

Block indicates extent of observed data.

Table 28

Slash Pine

Volume in Cords

[Peeled wood]

Diameter breast high, inches	Total height in feet										Basis
	20	30	40	50	60	70	80	90	100	110	
	Volume in cords										
											Trees
4	0.00595	0.00950	0.0132	0.0180	0.0225	0.0275					8
5	.00795	.0130	.0194	.0260	.0339	.0415	0.0489				20
6	.0106	.0178	.0268	.0358	.0471	.0583	.0685	0.0818			30
7	.0138	.0239	.0354	.0472	.0618	.0775	.0918	.108			42
8	.0174	.0312	.0454	.0607	.0798	.100	.118	.138	0.158		19
9		.0399	.0567	.0768	.101	.125	.148	.172	.192	0.215	14
10			.0690	.0942	.123	.152	.178	.206	.229	.257	24
11			.0835	.113	.146	.181	.213	.244	.270	.306	19
12			.0999	.133	.173	.212	.250	.285	.314	.358	23
13				.158	.201	.243	.288	.330	.364	.412	21
14				.183	.232	.278	.328	.375	.417	.468	14
15				.208	.264	.317	.372	.423	.472	.530	12
16				.235	.297	.357	.417	.474	.530	.591	14
17					.330	.398	.464	.526	.588	.655	5
18					.363	.440	.512	.582	.650	.735	2
19					.398	.483	.562	.639	.715	.787	1
20					.433	.528	.615	.697	.782	.856	
21					.470	.573	.672	.756	.852	.927	1
Basis		9	28	42	42	25	50	65	8		269

Volume includes peeled stem above a 1-foot stump to a top diameter inside the bark of 3 inches. Average deviation of individual tree volumes from tabular values, ±7.6 per cent; aggregate difference, −0.64 per cent.

Block indicates extent of observed data.

Slash Pine

Volume in Board Feet

International (⅛-inch) Rule

[Total height]

Diameter breast high, inches	Total height in feet							Basis
	40	50	60	70	80	90	100	
	Volume in board feet							
								Trees
7	10	14	19	26	34			33
8	16	23	32	42	53			19
9	24	34	46	59	74			14
10	30	46	61	77	98	116	136	27
11			76	97	122	145	172	19
12			93	118	147	176	206	23
13			110	140	173	207	244	21
14			128	162	199	239	280	13
15			145	184	226	272	320	13
16			163	205	253	303	380	14
17			180	227	280	336	400	5
18			198	250	307	368	438	2
19			216	272	334	400	476	1
20			234	294	361	432	514	
21			251	315	388	464	552	1
Basis	1	16	37	24	53	65	8	204

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height 1 foot, top diameter inside bark 5 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±13.3 per cent. aggregate difference, +0.18 per cent.
Block indicates extent of observed data.

Table 30

Slash Pine

Volume in Board Feet

International (⅛-inch) Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs					Basis
	1¼	2	3	4	5	
	Volume in board feet					
						Trees
7	20	30	46			33
8	22	37	57			18
9	25	43	70	97		14
10	28	49	84	117	153	27
11		56	97	138	183	19
12		63	112	161	212	23
13		69	127	188	244	21
14		77	142	207	276	14
15		84	158	233	311	12
16		92	177	259	347	14
17			195	288	285	5
18			213	317	424	2
19			234	348	466	1
20			255	381	511	
21			277	414	557	1
Basis	33	24	40	73	34	204

One-eighth-inch saw kerf, 1-inch boards. For ¼-inch saw kerf deduct 9.5 per cent.
Stump height 1 foot; top diameter inside bark 5 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 5-inch top. Average deviation of individual tree volumes from tabular values, ±7.1 per cent; aggregate difference, −0.67 per cent.
Block indicates extent of observed data.

Slash Pine

Volume in Board Feet

Scribner Decimal C Rule

[Total height]

Diameter breast high, inches	Total height in feet								Basis
	40	50	60	70	80	90	100	110	
	Volume in board feet, in tens								
7			1	1	1				*Trees* 1
8		1	2	2	3	4			27
9	1	2	3	4	5	6	8		27
10	2	4	5	6	8	9	11		36
11	3	5	7	8	10	12	13	14	23
12	4	6	8	10	12	14	16	18	24
13	5	8	10	12	14	16	19	21	22
14	6	9	12	14	17	19	22	24	15
15	7	10	13	16	19	22	24	27	12
16	8	12	15	18	21	24	27	30	15
17	10	14	17	21	24	27	30	33	5
18		15	19	23	26	30	33	36	2
19			21	25	29	32	37	40	1
20			23	27	31	35	40	43	
21			25	29	34	38	43	47	1
22			27	32	36	41	47	51	
23			29	34	39	44	50	55	
24			31	36	42	48	54	59	
25			33	39	45	51	58	63	
26			35	41	48	54	61	67	
27			37	44	50	58	65	71	
28			39	46	54	61	69	75	
29			41	49	57	65	74	80	
30			44	52	60	69	78	84	
Basis	4	13	33	35	54	64	8		211

Stump height, 1 foot; top diameter inside bark, 6 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance and additional top section to a 6-inch top. Average deviation of individual tree volumes from tabular values, ±11 per cent; aggregate difference, +0.4 per cent.

Block indicates extent of observed data.

Table 32

Slash Pine

Volume in Board Feet

Doyle Rule

[16-foot logs]

Diameter breast high, inches	Number of 16-foot logs					Basis
	1¼	2	3	4	5	
	Volume in board feet					
						Trees
9	17	23	34	47	----	6
10	18	26	42	57	----	26
11	20	30	51	71	92	19
12	22	35	61	86	111	23
13	24	40	71	102	131	21
14	27	47	82	121	156	14
15	30	51	94	140	183	12
16	----	57	109	160	211	14
17	----	64	124	183	242	5
18	----	71	140	207	275	2
19	----	79	156	232	309	1
20	----	87	175	260	348	----
21	----	95	196	291	388	1
Basis	6	31	57	50	----	144

Stump height, 1 foot; top diameter inside bark, 7 inches. Scaled in 16-foot log lengths, with 0.3-foot trimming allowance, and additional top section to a 7-inch top. Average deviation of individual tree volumes from tabular values, ±9.2 per cent; aggregate difference, —0.19 per cent.

Block indicates extent of observed data.

NORMAL YIELD TABLES FOR SECOND-GROWTH SOUTHERN PINES

INDEX

Title of table	Loblolly pine	Longleaf pine	Shortleaf pine	Slash pine
	Table No.	*Table No.*	*Table No.*	*Table No.*
Total height, average dominant tree	33	65	97	129
Trees 2 inches diameter breast high and over:				
Average diameter breast high	34	66	98	130
Average height	35	67	99	131
Number of trees	36	68	100	132
Basal area at breast height	37	69	101	133
Yield in cubic feet, rough wood	38	70	102	134
Yield in cubic feet, peeled wood	39	71	103	135
Average yearly growth in cubic feet, peeled wood	40	72	104	136
Trees 4 inches diameter breast high and over:				
Average diameter breast high	41	73	105	137
Number of trees	42	74	106	138
Basal area at breast height	43	75	107	139
Yield in cubic feet, rough wood	44	76	108	140
Yield in cubic feet, peeled wood	45	77	109	141
Yield in cords, rough wood	46	78	110	142
Average yearly growth in cords, rough wood	47	79	111	143
Yield in cords, peeled wood	48	80	112	144
Average yearly growth in cords, peeled wood	49	81	113	145
Trees 7 inches diameter breast high and over:				
Average diameter breast high	50	82	114	146
Number of trees	51	83	115	147
Basal area at breast height	52	84	116	148
Yield in board feet, International ¼-inch rule	53	85	117	149
Average yearly growth in board feet, International ¼-inch rule	54	86	118	150
Trees 8 inches diameter breast high and over:				
Yield in board feet Scribner rule	55	87	119	151
Average yearly growth in board feet Scribner rule	56	88	120	152
Trees 9 inches diameter breast high and over:				
Yield in board feet, Doyle rule	57	89	121	153
Average yearly growth in board feet, Doyle rule	58	90	122	154
Dominant trees:				
Average diameter breast high	59	91	123	155
Number of trees	60	92	124	156
Basal area at breast height	61	93	125	157
Yield in cubic feet, peeled wood	62	94	126	158
Yield in board feet, International ¼-inch rule	63	95	127	159
Distribution of sample plots by age and site, and their average deviation from the yield tables	64	96	128	160

Loblolly Pine

Total Height of Average Dominant Tree

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Height in feet						
15	24	29	33	37	41	45	49
20	32	38	43	48	54	59	64
25	39	45	51	58	64	70	77
30	45	52	59	67	74	81	89
35	50	58	66	74	83	91	99
40	54	63	72	81	90	99	108
45	57	67	76	86	95	105	114
50	*60*	*70*	*80*	*90*	*100*	*110*	*120*
55	62	73	83	93	104	114	125
60	64	75	85	96	107	118	128
65	66	76	87	98	109	120	131
70	67	78	89	100	112	122	133
75	68	79	90	102	113	124	136
80	69	80	92	103	115	126	137

Italicized values are site indices.

Table 34

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index, in feet						
	60	70	80	90	100	110	120
	Diameter, in inches						
15	2.8	3.3	3.7	4.2	4.5	4.9	5.3
20	3.6	4.3	5.0	5.6	6.1	6.6	7.1
25	4.6	5.5	6.3	7.0	7.6	8.2	8.8
30	5.4	6.5	7.4	8.2	9.0	9.7	10.4
35	6.1	7.4	8.4	9.3	10.2	11.0	11.8
40	6.8	8.1	9.2	10.2	11.2	12.1	13.0
45	7.4	8.8	10.0	11.1	12.2	13.1	14.1
50	7.9	9.4	10.7	12.0	13.1	14.1	15.1
55	8.4	10.0	11.4	12.7	13.9	15.0	16.1
60	8.9	10.6	12.0	13.4	14.6	15.9	17.0
65	9.3	11.1	12.6	14.0	15.3	16.6	17.8
70	9.7	11.5	13.1	14.6	15.9	17.3	18.5
75	10.1	11.9	13.6	15.1	16.5	17.9	19.2
80	10.4	12.3	14.0	15.6	17.1	18.4	19.7
85	10.7	12.6	14.4	16.0	17.6	18.9	20.3
90	10.9	12.9	14.7	16.3	18.0	19.3	20.7

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Average Total Height

Age, years	Site index, in feet						
	60	70	80	90	100	110	120
	Height, in feet						
15	20	24	27	30	34	37	41
20	29	34	39	44	49	54	59
25	36	42	48	54	61	68	74
30	42	49	56	63	70	78	85
35	47	55	63	71	78	87	95
40	51	59	68	77	85	94	103
45	54	64	73	82	91	101	110
50	57	67	77	86	96	106	116
55	59	70	80	90	100	110	121
60	61	72	82	93	103	114	125
65	63	74	84	95	106	117	128
70	64	75	86	97	108	119	130
75	65	77	88	99	109	121	132
80	66	78	89	100	111	123	134

Table 36

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Number of Trees per Acre

Age, years	Site index, in feet						
	60	70	80	90	100	110	120
	Trees per acre						
15	2,440	1,840	1,430	1,210	1,040	930	850
20	1,600	1,185	950	790	690	615	560
25	1,080	810	650	540	480	435	395
30	850	640	510	420	375	335	305
35	695	525	415	345	300	270	245
40	585	435	345	290	255	225	205
45	500	370	295	250	215	195	175
50	440	325	255	220	190	170	155
55	395	295	230	195	170	155	140
60	360	270	210	180	155	140	125
65	330	245	195	160	145	125	115
70	310	230	185	150	135	120	105
75	290	215	170	140	125	110	100
80	275	205	160	135	115	105	95

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Basal area in square feet						
15	103	107	112	114	121	126	133
20	121	125	129	133	138	145	152
25	131	136	139	144	150	157	165
30	138	143	147	152	158	166	174
35	143	148	152	157	164	172	181
40	147	151	156	162	168	176	185
45	150	154	159	165	171	179	189
50	152	157	162	167	174	182	192
55	154	159	164	169	176	184	194
60	156	160	165	171	178	186	196
65	157	162	167	173	179	188	198
70	158	163	168	174	181	189	199
75	159	164	169	175	182	190	200
80	160	165	170	176	182	191	201

Table 38

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cubic feet						
15	1,450	1,600	1,900	2,200	2,450	2,800	3,200
20	1,900	2,200	2,550	3,000	3,450	3,950	4,400
25	2,400	2,800	3,300	3,900	4,500	5,100	5,750
30	2,900	3,400	4,000	4,750	5,500	6,250	7,050
35	3,350	3,950	4,700	5,500	6,400	7,300	8,250
40	3,750	4,450	5,250	6,200	7,200	8,300	9,350
45	4,100	4,850	5,750	6,800	7,900	9,100	10,300
50	4,350	5,200	6,150	7,250	8,450	9,700	11,000
55	4,600	5,500	6,450	7,600	8,850	10,200	11,550
60	4,750	5,700	6,700	7,850	9,150	10,550	12,000
65	4,900	5,850	6,950	8,100	9,400	10,750	12,350
70	5,000	6,000	7,100	8,300	9,600	11,100	12,650
75	5,100	6,150	7,250	8,450	9,800	11,250	12,850
80	5,150	6,250	7,400	8,600	9,950	11,400	13,050

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cubic feet						
15	950	1,100	1,350	1,600	1,850	2,150	2,500
20	1,350	1,650	1,950	2,300	2,750	3,150	3,650
25	1,800	2,200	2,600	3,100	3,650	4,250	4,850
30	2,250	2,750	3,250	3,850	4,550	5,300	6,050
35	2,650	3,250	3,850	4,600	5,400	6,200	7,150
40	3,000	3,700	4,400	5,200	6,100	7,050	8,150
45	3,350	4,050	4,800	5,700	6,700	7,800	8,950
50	3,600	4,350	5,200	6,150	7,200	8,400	9,600
55	3,750	4,600	5,500	6,450	7,600	8,850	10,150
60	3,950	4,750	5,700	6,700	7,950	9,250	10,550
65	4,050	4,900	5,900	6,950	8,200	9,500	10,900
70	4,150	5,050	6,050	7,100	8,400	9,750	11,200
75	4,250	5,150	6,150	7,250	8,550	9,950	11,450
80	4,350	5,250	6,250	7,400	8,700	10,100	11,650

Table 40

Loblolly Pine

Stand 2 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cubic Feet

[Total volume—peeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in cubic feet						
15	63	73	90	107	123	143	167
20	68	82	98	115	138	158	182
25	72	88	104	124	146	170	194
30	75	92	108	128	152	177	202
35	76	93	110	131	154	177	204
40	75	92	110	130	152	176	204
45	74	90	107	127	149	173	199
50	72	87	104	123	144	168	192
55	68	84	100	117	138	161	185
60	66	79	95	112	132	154	176
65	62	75	91	107	126	146	168
70	59	72	86	101	120	139	160
75	57	69	82	97	114	133	153
80	54	66	78	92	109	126	146

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Diameter in inches						
15	4.6	4.8	4.9	5.1	5.4	5.6	5.8
20	4.9	5.2	5.6	6.1	6.5	6.9	7.3
25	5.4	6.0	6.6	7.2	7.7	8.3	8.8
30	5.9	6.8	7.5	8.2	9.0	9.7	10.4
35	6.5	7.5	8.4	9.3	10.2	11.0	11.8
40	7.0	8.2	9.2	10.2	11.2	12.1	13.0
45	7.5	8.8	10.0	11.1	12.2	13.1	14.1
50	8.0	9.5	10.7	12.0	13.1	14.1	15.1
55	8.5	10.0	11.4	12.7	13.9	15.0	16.1
60	8.9	10.6	12.0	13.4	14.6	15.9	17.0
65	9.3	11.1	12.6	14.0	15.3	16.6	17.8
70	9.7	11.5	13.1	14.6	15.9	17.3	18.5
75	10.1	11.9	13.6	15.1	16.5	17.9	19.2
80	10.4	12.3	14.0	15.6	17.1	18.4	19.7

Table 42

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Trees per acre						
15	545	580	635	640	640	640	640
20	670	675	665	630	595	560	535
25	670	680	575	510	465	430	395
30	650	575	490	415	370	335	305
35	605	505	410	345	305	270	245
40	545	430	345	290	255	225	205
45	480	370	295	250	220	195	175
50	430	325	255	220	195	170	155
55	390	295	230	195	175	155	140
60	360	270	210	175	155	140	125
65	330	245	195	160	145	130	115
70	310	230	180	150	135	120	105
75	290	215	170	140	125	110	100
80	275	205	160	130	115	105	95

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Basal Area per Acre at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Basal area in square feet						
15	64	74	84	92	102	110	124
20	92	107	117	126	134	142	150
25	115	128	136	143	150	157	165
30	130	140	146	152	158	166	174
35	139	147	152	157	164	172	180
40	146	151	156	161	168	176	185
45	150	154	159	165	171	179	189
50	152	157	162	167	174	182	192
55	154	159	164	169	176	184	194
60	156	161	166	171	178	186	196
65	157	162	167	172	179	188	198
70	158	163	168	174	181	189	199
75	159	164	169	175	182	190	200
80	160	165	170	176	183	191	201

Table 44.

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cubic feet						
15	1,000	1,250	1,550	1,900	2,200	2,600	3,100
20	1,500	1,900	2,350	2,850	3,300	3,850	4,400
25	2,150	2,650	3,200	3,800	4,400	5,100	5,850
30	2,750	3,350	4,000	4,700	5,400	6,200	7,150
35	3,300	3,950	4,700	5,500	6,350	7,250	8,350
40	3,700	4,500	5,300	6,200	7,150	8,200	9,400
45	4,050	4,900	5,750	6,750	7,800	9,000	10,250
50	4,300	5,200	6,150	7,200	8,400	9,650	11,000
55	4,550	5,450	6,400	7,500	8,800	10,150	11,600
60	4,700	5,700	6,650	7,800	9,150	10,550	12,050
65	4,850	5,850	6,850	8,050	9,400	10,900	12,400
70	5,000	6,000	7,000	8,200	9,600	11,150	12,700
75	5,100	6,100	7,200	8,400	9,800	11,350	12,950
80	5,200	6,200	7,300	8,550	9,950	11,500	13,150

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cubic feet						
15	650	850	1,100	1,400	1,650	2,000	2,400
20	1,100	1,450	1,800	2,250	2,700	3,100	3,650
25	1,650	2,100	2,550	3,050	3,650	4,250	4,850
30	2,150	2,700	3,250	3,850	4,550	5,300	6,050
35	2,600	3,250	3,850	4,600	5,400	6,200	7,150
40	3,000	3,700	4,400	5,200	6,100	7,050	8,150
45	3,350	4,050	4,800	5,700	6,700	7,800	8,950
50	3,600	4,350	5,200	6,150	7,200	8,400	9,600
55	3,750	4,600	5,500	6,450	7,600	8,850	10,150
60	3,950	4,750	5,700	6,700	7,950	9,250	10,550
65	4,050	4,900	5,900	6,950	8,200	9,500	10,900
70	4,150	5,050	6,050	7,100	8,400	9,750	11,200
75	4,250	5,150	6,150	7,250	8,550	9,950	11,450
80	4,350	5,250	6,250	7,400	8,700	10,100	11,650

Table 46

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Rough wood]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cords						
15	8	12	14	18	21	24	30
20	12	17	22	27	32	37	42
25	19	24	30	37	43	50	57
30	25	31	38	46	53	62	70
35	30	37	45	54	63	73	83
40	35	42	51	61	71	82	93
45	39	47	56	67	78	90	102
50	41	50	60	71	84	96	110
55	44	53	63	75	88	101	116
60	46	55	66	78	92	106	121
65	48	57	68	80	94	109	125
70	49	59	70	82	96	112	128
75	50	61	71	84	98	114	131
80	51	62	73	85	100	116	134

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Rough wood]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in cords						
15	0.53	0.80	0.93	1.20	1.40	1.60	2.00
20	.60	.85	1.10	1.35	1.60	1.85	2.10
25	.76	.96	1.20	1.48	1.72	2.00	2.28
30	.83	1.03	1.27	1.53	1.77	2.07	2.33
35	.86	1.06	1.29	1.54	1.80	2.09	2.37
40	.88	1.05	1.28	1.52	1.78	2.05	2.32
45	.87	1.04	1.24	1.49	1.73	2.00	2.27
50	.82	1.00	1.20	1.42	1.68	1.92	2.20
55	.80	.96	1.15	1.36	1.60	1.84	2.11
60	.77	.92	1.10	1.30	1.53	1.77	2.02
65	.74	.88	1.05	1.23	1.45	1.68	1.92
70	.70	.84	1.00	1.17	1.37	1.60	1.83
75	.67	.81	.95	1.12	1.31	1.52	1.75
80	.64	.78	.91	1.06	1.25	1.45	1.68

Table 48

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Peeled wood]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cords						
15	5	8	10	13	16	19	23
20	10	13	17	21	26	30	35
25	15	19	24	30	35	41	48
30	20	25	31	38	45	52	61
35	24	31	38	45	54	62	72
40	28	36	43	51	61	71	82
45	32	39	48	57	67	78	90
50	34	42	51	61	72	84	97
55	36	44	54	64	76	88	102
60	38	46	56	67	79	92	106
65	40	48	58	69	81	95	110
70	41	50	60	71	83	98	113
75	42	51	61	72	85	100	116
80	43	52	62	74	87	102	118

Loblolly Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Peeled wood]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in cords						
15	0.33	0.53	0.67	0.87	1.07	1.27	1.53
20	.50	.65	.85	1.05	1.30	1.50	1.75
25	.60	.76	.96	1.20	1.40	1.64	1.92
30	.67	.83	1.03	1.27	1.50	1.73	2.03
35	.69	.89	1.09	1.29	1.54	1.77	2.06
40	.70	.90	1.08	1.28	1.52	1.78	2.05
45	.71	.87	1.07	1.27	1.49	1.73	2.00
50	.68	.84	1.02	1.22	1.44	1.68	1.94
55	.65	.80	.98	1.16	1.38	1.60	1.85
60	.63	.77	.93	1.12	1.32	1.53	1.77
65	.62	.74	.89	1.06	1.25	1.46	1.69
70	.59	.71	.86	1.01	1.19	1.40	1.61
75	.56	.68	.81	.96	1.13	1.33	1.55
80	.54	.65	.78	.92	1.09	1.28	1.48

Table 50

Loblolly Pine

Stand 7 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Diameter in inches						
15		7.0	7.2	7.3	7.5	7.6	7.7
20	7.2	7.4	7.6	7.8	8.1	8.3	8.6
25	7.5	7.8	8.2	8.5	8.9	9.4	9.8
30	7.8	8.3	8.8	9.3	9.8	10.4	11.0
35	8.1	8.7	9.4	10.0	10.7	11.5	12.2
40	8.4	9.2	10.0	10.8	11.6	12.5	13.3
45	8.8	9.7	10.6	11.5	12.5	13.5	14.4
50	9.1	10.2	11.3	12.3	13.4	14.4	15.3
55	9.5	10.6	11.9	13.0	14.1	15.1	16.2
60	9.8	11.1	12.4	13.7	14.8	15.9	17.0
65	10.1	11.5	12.9	14.3	15.5	16.6	17.8
70	10.4	11.9	13.4	14.8	16.1	17.3	18.5
75	10.7	12.3	13.8	15.3	16.6	17.9	19.2
80	11.0	12.6	14.1	15.7	17.1	18.4	19.7

Loblolly Pine

Stand 7 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Trees per acre						
15	------	20	30	55	85	120	155
20	30	85	135	190	220	260	285
25	100	180	235	265	285	295	295
30	170	255	285	285	285	275	260
35	225	295	300	275	255	240	225
40	265	290	270	245	225	210	195
45	280	280	245	225	200	185	170
50	280	260	225	200	180	165	150
55	280	245	205	185	165	150	140
60	270	230	195	170	155	140	125
65	260	220	180	160	140	125	115
70	250	210	170	150	135	120	105
75	245	200	165	140	125	110	100
80	235	190	155	130	115	105	95

Table 52

Loblolly Pine

Stand 7 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Basal area in square feet						
15	------	5	9	15	25	37	51
20	8	21	41	61	79	97	112
25	30	59	85	105	122	136	149
30	57	93	116	131	144	155	166
35	82	115	134	146	157	167	177
40	103	129	144	155	165	174	184
45	118	139	151	161	169	178	189
50	128	146	157	165	173	182	192
55	136	151	161	168	176	184	194
60	142	155	163	171	178	186	196
65	146	157	165	173	180	188	198
70	149	160	167	174	181	189	199
75	152	161	168	175	182	190	200
80	154	163	169	176	183	191	201

Loblolly Pine

Stand 7 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

International (⅛-inch) Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in board feet						
15	-------	50	150	850	1,800	3,000	4,600
20	-------	1,500	3,000	5,000	7,500	10,000	13,000
25	2,000	4,500	7,500	11,000	14,500	18,500	23,500
30	4,500	8,500	12,500	17,000	22,000	27,500	33,000
35	7,000	12,500	17,500	23,000	29,000	36,000	43,000
40	10,000	16,000	22,000	28,500	35,500	43,000	51,500
45	12,500	19,500	26,000	33,500	41,000	49,500	58,500
50	15,000	22,000	29,500	37,500	45,500	54,500	64,500
55	17,500	24,500	32,500	40,500	49,500	59,000	69,000
60	19,000	26,500	34,500	43,000	52,500	63,000	73,000
65	20,500	28,500	36,500	45,000	55,000	66,000	76,500
70	22,000	29,500	38,000	47,000	57,000	68,000	79,500
75	23,000	31,000	39,500	48,500	59,000	70,000	81,500
80	24,000	32,000	40,500	50,000	60,500	71,500	83,500

Table 54

Loblolly Pine

Stand 7 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

International (¼-inch) Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in board feet						
15		3	10	57	120	200	307
20		75	150	250	375	500	650
25	80	180	300	440	580	740	940
30	150	283	417	567	733	917	1,100
35	200	357	500	657	829	1,029	1,229
40	250	400	550	712	888	1,075	1,288
45	278	433	578	744	911	1,100	1,300
50	300	440	590	750	910	1,090	1,290
55	318	445	591	736	900	1,073	1,255
60	317	442	575	717	875	1,050	1,217
65	315	438	562	692	846	1,015	1,177
70	314	421	543	671	814	971	1,136
75	307	413	527	647	787	933	1,087
80	300	400	506	625	756	894	1,044

Loblolly Pine

Stand 8 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Scribner Decimal C Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in board feet						
15	------	------	------	67	130	236	384
20	------	90	235	495	750	940	326
25	139	405	705	1,040	1,400	1,825	2,270
30	388	790	1,200	1,670	2,170	2,720	3,260
35	655	1,190	1,720	2,268	2,870	3,530	4,230
40	950	1,575	2,178	2,800	3,548	4,240	5,050
45	1,228	1,910	2,570	3,270	4,060	4,875	5,770
50	1,470	2,190	2,905	3,640	4,520	5,420	6,370
55	1,670	2,415	3,190	3,970	4,880	5,840	6,830
60	1,855	2,615	3,410	4,240	5,180	6,175	7,225
65	2,015	2,800	3,610	4,475	5,440	6,460	7,540
70	2,150	2,950	3,785	4,660	5,640	6,680	7,800
75	2,270	3,075	3,910	4,820	5,820	6,890	8,020
80	2,380	3,190	4,020	4,940	5,950	7,040	8,220

Table 56

Loblolly Pine

Stand 8 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Scribner Decimal C Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in board feet						
15	------	------	------	4	9	16	26
20	------	4	12	25	38	47	63
25	6	16	28	42	56	73	91
30	13	26	40	56	72	91	109
35	19	34	49	65	82	101	121
40	24	39	54	70	89	106	126
45	27	42	57	73	90	108	128
50	29	44	58	73	90	108	127
55	30	44	58	72	89	106	124
60	31	44	57	71	86	103	120
65	31	43	56	69	84	99	116
70	31	42	54	67	81	95	111
75	30	41	52	64	78	92	107
80	30	40	50	62	74	88	103

Loblolly Pine

Stand 9 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Doyle Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in board feet						
15							
20					500	1,000	2,000
25			1,000	1,500	2,500	4,500	6,000
30		1,000	2,000	4,000	6,000	9,000	12,000
35	500	2,000	4,000	7,000	10,500	14,500	19,500
40	1,000	3,500	6,000	10,000	14,500	20,000	26,000
45	2,000	5,000	8,500	13,500	19,000	25,000	31,500
50	3,000	6,500	11,500	16,500	23,000	29,500	36,500
55	4,000	8,000	14,000	19,500	26,500	33,500	40,500
60	5,000	10,000	16,000	22,000	29,500	36,500	43,500
65	6,000	11,500	17,500	24,500	31,500	38,500	46,000
70	7,000	12,500	19,500	26,000	33,000	40,500	48,000
75	8,000	14,000	20,500	27,500	34,500	42,000	49,500
80	8,500	15,000	22,000	29,000	35,500	43,500	51,000

Table 58

Loblolly Pine

Stand 9 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Doyle Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Growth in board feet						
15							
20					25	50	100
25			40	60	100	180	240
30		33	67	133	200	300	400
35	14	57	114	200	300	414	557
40	25	88	150	250	362	500	650
45	44	111	189	300	422	556	700
50	60	130	230	330	460	590	730
55	73	145	255	355	482	609	736
60	83	167	267	367	492	608	725
65	92	177	269	377	485	592	708
70	100	179	279	371	471	579	686
75	107	187	273	367	460	560	660
80	106	188	275	362	444	544	638

Loblolly Pine

Dominant Stand

Average Diameter at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Diameter in inches						
15	3.7	4.3	4.8	5.3	5.7	6.1	6.5
20	4.6	5.4	6.2	6.9	7.4	7.9	8.5
25	5.8	6.6	7.6	8.2	9.0	9.6	10.3
30	6.6	7.8	8.7	9.6	10.4	11.2	11.9
35	7.4	8.7	9.8	10.3	11.6	12.5	13.4
40	8.1	9.6	10.7	11.7	12.8	13.7	14.6
45	8.8	10.3	11.5	12.7	13.8	14.8	15.8
50	9.4	10.9	12.2	13.6	14.7	15.7	16.8
55	9.9	11.6	13.0	14.3	15.5	16.6	17.7
60	10.4	12.1	13.6	15.0	16.2	17.4	18.6
65	10.8	12.6	14.1	15.6	16.9	18.2	19.4
70	11.2	13.0	14.6	16.2	17.6	18.8	20.0
75	11.5	13.5	15.1	16.7	18.1	19.4	20.6
80	11.9	13.8	15.5	17.2	18.6	20.0	21.2

Table 60

Loblolly Pine

Dominant Stand

Number of Trees Per Acre

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Trees per acre						
15	955	735	610	520	470	420	390
20	670	510	430	370	330	300	280
25	480	385	325	275	255	235	220
30	390	315	260	225	205	190	180
35	330	270	220	190	175	160	150
40	290	230	195	170	155	140	130
45	255	205	170	150	135	125	115
50	230	180	155	135	125	115	105
55	215	170	140	125	115	105	100
60	200	160	130	115	105	100	90
65	185	150	125	110	100	95	85
70	175	140	115	100	95	90	80
75	170	135	110	95	90	85	75
80	160	130	105	95	85	80	70
85	155	120	100	90	80	75	70
90	150	120	95	85	80	70	65

Loblolly Pine

Dominant Stand

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Basal area in square feet						
15	71	74	76	79	82	88	93
20	86	88	90	93	98	103	109
25	91	95	98	103	109	116	123
30	96	101	106	111	118	126	134
35	101	106	112	118	126	134	143
40	104	111	117	125	133	141	151
45	108	115	122	130	138	147	157
50	111	118	126	134	143	152	162
55	113	122	130	138	147	156	167
60	116	125	132	141	150	160	171
65	118	127	135	143	153	163	174
70	120	129	137	146	155	166	177
75	121	131	139	148	157	168	179
80	123	133	141	150	159	170	181
85	125	135	143	151	161	171	182
90	126	136	144	152	162	173	184

Table 62

Loblolly Pine

Dominant Stand

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in cubic feet						
15	750	800	1,000	1,200	1,350	1,600	1,850
20	1,000	1,200	1,450	1,700	2,050	2,350	2,700
25	1,300	1,650	1,950	2,300	2,750	3,250	3,750
30	1,650	2,050	2,500	2,950	3,500	4,150	4,900
35	1,950	2,450	2,950	3,550	4,250	5,050	6,000
40	2,250	2,750	3,400	4,100	4,950	5,900	6,900
45	2,500	3,100	3,800	4,600	5,550	6,550	7,600
50	2,700	3,350	4,100	5,000	6,050	7,150	8,250
55	2,900	3,600	4,400	5,350	6,450	7,600	8,850
60	3,050	3,800	4,650	5,650	6,800	8,000	9,300
65	3,150	3,950	4,850	5,850	7,100	8,400	9,700
70	3,250	4,100	5,050	6,150	7,300	8,650	10,050
75	3,350	4,200	5,200	6,250	7,500	8,900	10,300
80	3,450	4,350	5,350	6,400	7,700	9,050	10,550

Loblolly Pine

Dominant Stand

Yield in Board Feet Per Acre

International (¼-Inch) Rule

Age, years	Site index in feet						
	60	70	80	90	100	110	120
	Yield in board feet						
15	--------	50	150	850	1,800	3,000	4,500
20	--------	1,500	3,000	5,000	7,000	9,000	11,500
25	2,000	4,500	7,000	9,500	13,000	16,500	20,000
30	4,500	7,500	11,000	14,500	19,000	23,500	29,000
35	7,000	11,000	15,000	19,000	24,500	31,000	37,500
40	9,000	14,000	18,500	24,000	30,500	37,500	45,000
45	11,500	16,500	22,000	28,000	35,500	43,500	52,000
50	13,500	19,000	25,000	31,500	40,000	49,000	57,500
55	15,000	21,000	27,000	34,500	43,500	53,000	62,000
60	16,500	22,500	29,000	37,000	46,500	56,000	65,000
65	17,500	24,000	31,000	39,500	49,000	59,000	69,500
70	18,500	25,500	33,000	41,500	51,000	61,500	72,500
75	19,500	26,500	34,500	43,000	53,000	63,500	75,000
80	20,500	28,000	35,500	44,500	54,500	65,000	77,000

Table 64

Loblolly Pine

Sample Plots

Distribution by Age and Site

Age, years	Site index in feet								
	60	70	80	90	100	110	120	130	Total
	Number of plots								
10		2	1	2	1				6
20		2	8	14	9	2	4	1	40
30	2	4	8	8	8	4	1		35
40	1		4	9	7		1		22
50		1	1	5	3	1			11
60			1	3	4				8
70			4	2					6
80									
90				1	1	1			3
Total	3	9	27	44	33	8	6	1	131

Average deviation of individual plots from yield tables

Trees 2 inches in d. b. h. and over:	
Number	21.1 per cent
Basal area	14.7 per cent
Average d. b. h.	10.5 per cent
Volume in cubic feet	15.7 per cent
Trees 7 inches in d. b. h. and over:	
Volume in board feet, International ¼-inch rule	23.4 per cent

Longleaf Pine

Total Height of Average Dominant Tree

Age, years	Site index, in feet							
	40	50	60	70	80	90	100	110
	Height, in feet							
15	14	18	22	26	30	33	37	41
20	20	26	31	36	41	46	52	57
25	25	32	38	45	51	57	64	70
30	30	37	44	52	59	66	74	81
35	33	41	49	57	66	74	82	90
40	36	45	53	62	71	80	89	98
45	38	47	57	66	76	85	95	104
50	*40*	*50*	*60*	*70*	*80*	*90*	*100*	*110*
55	42	53	63	74	84	94	105	115
60	44	55	65	77	87	98	109	120
65	45	57	68	79	90	102	113	124
70	47	58	70	82	93	105	117	128
75	48	60	72	84	96	108	120	132
80	49	61	73	86	98	110	123	135
85	50	63	75	88	100	112	125	137
90	51	63	76	89	101	114	127	139
95	51	64	77	90	102	115	128	140
100	52	65	77	90	103	116	129	142

Italicized values are site indices.

Table 66

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index, in feet							
	40	50	60	70	80	90	100	110
	Diameter, in inches							
15	1.7	2.2	2.5	2.8	3.2	3.5	3.9	4.2
20	2.4	2.8	3.3	3.8	4.3	4.7	5.2	5.6
25	2.9	3.5	4.2	4.7	5.3	5.9	6.4	6.9
30	3.4	4.1	4.9	5.5	6.1	6.7	7.4	7.9
35	3.8	4.6	5.5	6.2	6.9	7.6	8.2	8.9
40	4.2	5.1	6.0	6.8	7.6	8.3	9.0	9.8
45	4.5	5.6	6.5	7.4	8.2	9.0	9.8	10.7
50	4.8	5.9	7.0	7.9	8.8	9.6	10.5	11.4
55	5.1	6.3	7.4	8.4	9.3	10.2	11.1	12.1
60	5.4	6.6	7.8	8.8	9.8	10.7	11.7	12.7
65	5.7	6.9	8.1	9.2	10.2	11.2	12.2	13.3
70	5.9	7.2	8.5	9.6	10.6	11.6	12.7	13.8
75	6.1	7.5	8.8	10.0	11.1	12.1	13.2	14.4
80	6.4	7.8	9.1	10.3	11.5	12.5	13.7	14.9
85	6.6	8.0	9.4	10.7	11.9	13.0	14.2	15.4
90	6.8	8.3	9.8	11.0	12.3	13.4	14.6	15.8
95	7.0	8.6	10.1	11.3	12.6	13.8	15.0	16.3
100	7.2	8.8	10.3	11.7	13.0	14.2	15.4	16.7

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Total Height

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Height in feet							
15	14	17	22	26	30	34	38	42
20	18	23	29	34	40	45	51	56
25	22	28	34	41	48	54	61	67
30	25	32	40	47	55	62	70	77
35	28	36	45	53	62	70	78	87
40	31	40	49	58	67	76	86	95
45	33	43	52	62	72	82	92	102
50	35	45	55	66	76	87	97	107
55	36	47	58	69	80	90	101	112
60	38	49	60	72	83	94	106	117
65	39	50	62	74	86	97	109	121
70	40	52	64	76	88	100	112	124
75	41	53	66	78	90	103	115	127
80	42	54	67	80	92	105	118	130
85	43	56	69	81	94	107	120	133
90	44	57	70	83	96	109	123	136
95	45	58	71	84	98	111	125	138
100	45	59	72	86	99	113	127	140

Table 68

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Trees per acre							
15	2,145	1,985	1,800	1,610	1,450	1,260	1,090	960
20	1,550	1,410	1,290	1,150	1,050	910	790	690
25	1,220	1,120	1,020	920	820	720	630	550
30	990	900	815	730	655	575	500	445
35	810	740	670	600	540	465	415	365
40	690	625	575	515	465	405	355	315
45	615	555	515	460	415	365	315	275
50	560	505	465	415	375	330	285	250
55	510	465	425	380	345	300	260	230
60	470	430	395	355	315	275	240	210
65	440	400	365	325	295	255	225	195
70	410	375	345	305	270	240	205	180
75	385	355	320	285	255	220	195	170
80	365	335	305	270	240	210	185	160
85	345	315	285	255	230	200	175	150
90	325	300	275	245	215	190	165	145
95	310	285	260	235	210	180	160	135
100	295	275	250	225	200	175	155	130

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Basal Area Per Acre at Breast Height

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Basal area in square feet							
15	35	48	60	69	77	83	87	91
20	48	64	79	92	102	109	114	118
25	54	72	89	104	114	123	128	132
30	58	78	97	113	124	134	140	144
35	63	83	103	120	133	143	150	154
40	66	88	108	127	140	150	158	162
45	69	92	113	133	147	157	165	170
50	72	95	118	138	152	162	170	176
55	74	98	121	141	156	167	175	181
60	76	100	124	145	160	170	179	185
65	77	102	126	148	163	174	182	189
70	79	104	128	150	166	176	185	192
75	80	105	130	152	168	179	187	194
80	80	106	131	153	169	180	189	196
85	81	107	132	154	171	182	191	197
90	82	108	133	155	172	184	192	198
95	82	108	134	156	173	185	193	199
100	82	109	135	157	173	186	194	200

Table 70

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cubic feet							
15	350	750	1,150	1,500	1,750	2,000	2,200	2,450
20	500	1,000	1,500	2,000	2,450	2,800	3,150	3,450
25	650	1,200	1,900	2,500	3,100	3,600	4,050	4,400
30	800	1,450	2,200	3,000	3,700	4,350	4,950	5,350
35	950	1,650	2,550	3,500	4,300	5,100	5,800	6,300
40	1,100	1,850	2,900	3,950	4,900	5,800	6,600	7,200
45	1,250	2,050	3,200	4,400	5,500	6,500	7,400	8,100
50	1,350	2,250	3,550	4,800	6,000	7,150	8,200	8,950
55	1,450	2,400	3,800	5,200	6,500	7,800	8,850	9,700
60	1,550	2,600	4,100	5,600	7,000	8,350	9,500	10,500
65	1,650	2,750	4,350	5,900	7,450	8,900	10,100	11,100
70	1,700	2,950	4,600	6,200	7,850	9,400	10,700	11,700
75	1,800	3,100	4,800	6,500	8,200	9,900	11,200	12,200
80	1,850	3,200	4,950	6,800	8,550	10,250	11,600	12,700
85	1,900	3,350	5,150	7,000	8,900	10,650	12,100	13,200
90	1,950	3,450	5,300	7,200	9,150	11,000	12,500	13,600
95	2,000	3,500	5,450	7,400	9,400	11,300	12,800	14,000
100	2,050	3,600	5,550	7,600	9,600	11,550	13,100	14,300

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cubic feet							
15	200	375	600	825	1,075	1,325	1,525	1,675
20	300	600	950	1,325	1,700	2,100	2,400	2,650
25	450	800	1,400	1,800	2,300	2,800	3,250	3,550
30	550	1,000	1,600	2,200	2,850	3,500	4,050	4,400
35	650	1,200	1,900	2,700	3,450	4,250	4,900	5,350
40	750	1,400	2,200	3,100	4,000	4,900	5,600	6,200
45	850	1,600	2,500	3,550	4,550	5,600	6,400	7,050
50	950	1,750	2,800	3,950	5,050	6,200	7,150	7,850
55	1,050	1,900	3,050	4,300	5,550	6,800	7,850	8,600
60	1,150	2,100	3,350	4,650	5,950	7,350	8,500	9,300
65	1,250	2,200	3,550	5,000	6,350	7,800	9,000	9,900
70	1,300	2,300	3,700	5,250	6,700	8,250	9,500	10,450
75	1,350	2,450	3,950	5,500	7,050	8,650	10,000	10,950
80	1,400	2,550	4,100	5,750	7,350	9,000	10,350	11,400
85	1,450	2,650	4,250	5,950	7,600	9,350	10,750	11,800
90	1,500	2,750	4,350	6,150	7,850	9,650	11,100	12,200
95	1,550	2,850	4,500	6,300	8,100	9,900	11,450	12,550
100	1,600	2,900	4,600	6,450	8,300	10,200	11,750	12,900

Table 72

Longleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cubic Feet

[Total volume—peeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Growth in cubic feet							
15	13	25	40	55	72	88	102	112
20	15	30	48	66	85	105	120	132
25	18	32	56	72	92	112	130	142
30	18	33	53	73	95	117	135	147
35	19	34	54	77	99	121	140	153
40	19	35	55	78	100	122	140	155
45	19	36	56	79	101	124	142	157
50	19	35	56	79	101	124	143	157
55	19	35	55	78	101	124	143	156
60	19	35	56	78	99	122	142	155
65	19	34	55	77	98	120	138	152
70	19	33	53	75	96	118	136	149
75	18	33	53	73	94	115	133	146
80	18	32	51	72	92	112	129	142
85	17	31	50	70	89	110	126	139
90	17	31	48	68	87	107	123	136
95	16	30	47	66	85	104	121	132
100	16	29	46	64	83	102	118	129

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Diameter in inches							
15	4.1	4.3	4.4	4.6	5.1	5.3	5.6	5.7
20	4.4	4.7	5.0	5.2	5.5	5.7	6.0	6.3
25	4.6	5.0	5.4	5.7	6.1	6.4	6.8	7.2
30	4.9	5.3	5.8	6.2	6.7	7.1	7.6	8.1
35	5.1	5.6	6.2	6.7	7.3	7.8	8.4	9.0
40	5.3	5.9	6.6	7.2	7.8	8.4	9.1	9.8
45	5.5	6.2	7.0	7.6	8.4	9.0	9.8	10.6
50	5.7	6.5	7.3	8.1	8.9	9.6	10.5	11.4
55	5.9	6.8	7.7	8.5	9.4	10.2	11.1	12.1
60	6.1	7.1	8.0	8.9	9.9	10.7	11.7	12.8
65	6.3	7.3	8.4	9.3	10.3	11.2	12.2	13.3
70	6.5	7.6	8.7	9.7	10.8	11.7	12.7	13.9
75	6.7	7.8	9.0	10.1	11.2	12.2	13.2	14.4
80	6.9	8.0	9.3	10.4	11.6	12.6	13.7	14.8
85	7.1	8.3	9.6	10.7	11.9	13.0	14.1	15.3
90	7.2	8.5	9.8	11.0	12.3	13.4	14.6	15.7
95	7.4	8.7	10.1	11.3	12.6	13.8	15.0	16.2
100	7.5	8.9	10.3	11.6	12.8	14.1	15.4	16.6

Table 74

Longleaf Pine

Stand 4 Inches Diameter Breast High and Ove

Number of Trees Per Acre

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Trees per acre							
15	50	155	205	250	300	345	405	420
20	215	295	400	500	580	580	555	520
25	265	385	500	550	580	550	500	465
30	300	430	540	540	530	495	445	405
35	330	440	550	495	475	425	385	350
40	345	435	475	450	420	380	336	309
45	360	425	440	415	385	345	305	275
50	360	410	410	380	355	320	282	250
55	355	390	385	355	330	295	260	230
60	345	365	360	330	310	275	240	210
65	335	350	340	310	290	255	225	195
70	325	335	320	295	270	240	210	180
75	315	320	305	280	255	225	200	170
80	300	305	290	265	240	215	185	160
85	290	295	275	255	230	200	175	150
90	280	280	265	240	220	190	165	145
95	270	270	255	230	210	185	160	140
100	265	260	245	225	200	175	150	130

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Basal area in square feet							
15	4	6	22	29	41	52	65	72
20	12	35	55	75	89	98	106	112
25	29	54	74	92	107	116	124	130
30	41	65	87	105	120	130	137	144
35	49	74	96	115	131	141	148	154
40	56	81	104	124	139	149	157	162
45	61	87	110	132	146	156	164	170
50	65	91	116	137	152	162	170	176
55	68	95	120	141	157	167	175	181
60	71	98	123	145	160	171	179	185
65	73	101	126	148	163	174	182	189
70	75	103	128	150	166	176	184	192
75	77	104	130	152	168	179	187	194
80	78	106	131	153	169	181	189	196
85	79	107	133	155	171	182	190	197
90	80	107	134	156	172	184	192	198
95	81	108	134	157	173	185	193	199
100	81	108	135	157	173	186	194	200

Table 76

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cubic feet							
15	20	160	420	800	1,210	1,540	1,870	2,160
20	150	500	1,000	1,500	2,050	2,550	2,950	3,250
25	350	850	1,500	2,100	2,800	3,440	3,950	4,300
30	550	1,150	1,900	2,700	3,500	4,250	4,900	5,350
35	750	1,450	2,350	3,300	4,200	5,050	5,800	6,300
40	900	1,700	2,750	3,800	4,900	5,800	6,600	7,200
45	1,050	1,950	3,100	4,300	5,500	6,500	7,400	8,100
50	1,200	2,150	3,450	4,750	6,000	7,150	8,200	8,950
55	1,300	2,350	3,750	5,200	6,500	7,800	8,850	9,700
60	1,400	2,550	4,000	5,600	7,000	8,350	9,500	10,500
65	1,500	2,700	4,300	5,900	7,450	8,900	10,100	11,100
70	1,600	2,850	4,500	6,200	7,850	9,400	10,700	11,700
75	1,700	3,000	4,700	6,500	8,200	9,900	11,200	12,200
80	1,750	3,150	4,900	6,800	8,550	10,250	11,600	12,700
85	1,850	3,250	5,100	7,000	8,900	10,650	12,100	13,200
90	1,900	3,350	5,200	7,200	9,150	11,000	12,500	13,600
95	1,950	3,500	5,350	7,400	9,400	11,300	12,800	14,000
100	2,000	3,600	5,500	7,600	9,600	11,550	13,100	14,300

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cubic feet							
15	10	80	220	440	740	1,020	1,300	1,480
20	120	400	700	1,100	1,550	1,950	2,300	2,550
25	270	620	1,100	1,600	2,200	2,750	3,200	3,500
30	400	860	1,450	2,100	2,800	3,450	4,050	4,400
35	530	1,100	1,800	2,600	3,400	4,200	4,900	5,350
40	650	1,300	2,150	3,050	4,000	4,900	5,650	6,200
45	780	1,500	2,450	3,500	4,550	5,600	6,400	7,050
50	900	1,700	2,750	3,900	5,050	6,200	7,150	7,850
55	1,000	1,850	3,000	4,300	5,550	6,800	7,850	8,600
60	1,100	2,050	3,300	4,650	5,950	7,350	8,500	9,300
65	1,200	2,200	3,500	5,000	6,350	7,800	9,000	9,900
70	1,250	2,300	3,700	5,250	6,700	8,250	9,500	10,450
75	1,350	2,450	3,950	5,500	7,050	8,650	10,000	10,950
80	1,400	2,550	4,100	5,750	7,350	9,000	10,350	11,400
85	1,450	2,650	4,250	5,950	7,600	9,350	10,750	11,800
90	1,500	2,750	4,350	6,150	7,850	9,650	11,100	12,200
95	1,550	2,850	4,500	6,300	8,100	9,900	11,450	12,550
100	1,600	2,900	4,600	6,450	8,300	10,200	11,750	12,900

Table 78

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Rough wood]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cords							
15	-------	2	5	7	11	16	20	22
20	1	4	8	14	20	26	30	34
25	3	8	14	21	28	35	40	44
30	5	11	19	28	36	43	49	54
35	7	14	24	33	43	51	58	64
40	9	17	27	39	49	59	66	73
45	10	19	31	43	55	66	74	82
50	11	21	34	48	61	72	82	90
55	12	23	37	52	65	78	89	98
60	13	25	40	55	70	84	96	106
65	14	27	43	59	74	89	102	113
70	15	28	45	62	78	94	108	119
75	16	30	47	65	82	99	113	125
80	17	31	49	67	85	103	118	130
85	18	32	51	70	88	106	122	134
90	18	33	52	72	91	110	126	138
95	19	34	54	74	94	113	129	142
100	20	35	55	76	97	117	133	145

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Rough wood]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Growth in cords							
15	------	0.13	0.33	0.47	0.73	1.07	1.33	1.47
20	0.05	.20	.40	.70	1.00	1.30	1.50	1.70
25	.12	.32	.56	.84	1.12	1.40	1.60	1.76
30	.17	.37	.63	.93	1.20	1.43	1.63	1.80
35	.20	.40	.69	.94	1.23	1.46	1.66	1.83
40	.22	.42	.68	.98	1.22	1.48	1.65	1.82
45	.22	.42	.69	.96	1.22	1.47	1.64	1.82
50	.22	.42	.68	.96	1.22	1.44	1.64	1.80
55	.22	.42	.67	.95	1.18	1.42	1.62	1.78
60	.22	.42	.67	.92	1.17	1.40	1.60	1.77
65	.22	.42	.66	.91	1.14	1.37	1.57	1.74
70	.21	.40	.64	.89	1.11	1.34	1.54	1.70
75	.21	.40	.63	.87	1.09	1.32	1.51	1.67
80	.21	.39	.61	.84	1.06	1.29	1.48	1.62
85	.21	.38	.60	.82	1.04	1.25	1.44	1.58
90	.20	.37	.58	.80	1.01	1.22	1.40	1.53
95	.20	.36	.57	.78	.99	1.19	1.36	1.49
100	.20	.35	.55	.76	.97	1.17	1.33	1.45

Table 80

Longleaf Pine

Stand 7 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Diameter in inches							
15				7.2	7.4	7.6	7.7	7.8
20	7.0	7.1	7.3	7.4	7.5	7.7	7.8	8.0
25	7.2	7.3	7.5	7.7	7.8	8.0	8.2	8.5
30	7.3	7.5	7.7	7.9	8.1	8.4	8.7	9.1
35	7.4	7.6	7.9	8.2	8.5	8.9	9.3	9.8
40	7.5	7.8	8.1	8.5	8.9	9.4	9.9	10.5
45	7.6	7.9	8.3	8.8	9.3	9.8	10.5	11.2
50	7.7	8.1	8.6	9.1	9.8	10.3	11.0	11.8
55	7.8	8.3	8.8	9.4	10.1	10.8	11.6	12.4
60	7.9	8.4	9.0	9.8	10.5	11.3	12.1	13.1
65	8.0	8.6	9.3	10.0	10.9	11.7	12.5	13.5
70	8.1	8.7	9.5	10.4	11.2	12.1	13.0	14.0
75	8.2	8.9	9.8	10.7	11.6	12.5	13.5	14.5
80	8.3	9.0	10.0	11.0	12.0	12.9	14.0	15.0
85	8.4	9.2	10.2	11.3	12.3	13.3	14.4	15.4
90	8.5	9.4	10.5	11.5	12.6	13.6	14.7	15.8
95	8.6	9.5	10.7	11.8	12.9	14.0	15.1	16.2
100	8.6	9.7	10.9	12.1	13.2	14.3	15.4	16.6

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Peeled wood]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Growth in cords							
15	-----	0.07	0.20	0.33	0.53	0.80	1.00	1.07
20	0.05	.15	.30	.50	.75	1.00	1.20	1.30
25	.08	.24	.40	.64	.88	1.08	1.28	1.44
30	.13	.27	.47	.70	.93	1.17	1.37	1.50
35	.14	.31	.51	.74	1.00	1.20	1.40	1.54
40	.15	.32	.52	.78	1.02	1.22	1.42	1.58
45	.16	.33	.56	.78	1.02	1.24	1.44	1.58
50	.16	.34	.56	.78	1.02	1.24	1.44	1.58
55	.16	.35	.55	.78	1.02	1.24	1.44	1.58
60	.17	.33	.55	.77	1.00	1.22	1.42	1.57
65	.17	.34	.54	.77	.98	1.20	1.40	1.54
70	.17	.33	.53	.74	.97	1.19	1.37	1.50
75	.16	.32	.52	.73	.95	1.16	1.33	1.47
80	.16	.31	.50	.72	.92	1.12	1.30	1.44
85	.16	.31	.49	.71	.91	1.09	1.27	1.40
90	.16	.30	.48	.68	.88	1.07	1.23	1.37
95	.16	.29	.47	.66	.85	1.04	1.21	1.34
100	.16	.29	.46	.65	.83	1.02	1.18	1.31

Table 82

Longleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Peeled wood]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cords							
15		1	3	5	8	12	15	16
20	1	3	6	10	15	20	24	26
25	2	6	10	16	22	27	32	36
30	4	8	14	21	28	35	41	45
35	5	11	18	26	35	42	49	54
40	6	13	21	31	41	49	57	63
45	7	15	25	35	46	56	65	71
50	8	17	28	39	51	62	72	79
55	9	19	30	43	56	68	79	87
60	10	20	33	46	60	73	85	94
65	11	22	35	50	64	78	91	100
70	12	23	37	52	68	83	96	105
75	12	24	39	55	71	87	100	110
80	13	25	40	58	74	90	104	115
85	14	26	42	60	77	93	108	119
90	15	27	43	61	79	96	111	123
95	15	28	45	63	81	99	115	127
100	16	29	46	65	83	102	118	131

Longleaf Pine

Stand 7 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Trees per acre							
15	------	------	------	3	6	13	23	31
20	------	------	15	35	70	110	140	170
25	------	------	63	112	150	211	258	273
30	10	35	110	170	220	255	270	275
35	22	61	148	208	253	266	268	257
40	35	100	185	235	265	265	255	240
45	50	136	213	249	264	261	245	230
50	65	160	230	255	260	255	235	220
55	84	175	234	253	254	242	224	209
60	105	185	235	245	245	230	215	200
65	116	192	233	240	238	222	206	189
70	125	195	230	235	230	215	195	180
75	133	199	226	227	222	209	189	170
80	140	200	220	220	215	195	180	160
85	145	200	216	214	207	190	174	153
90	150	200	210	210	200	185	165	145
95	153	196	206	201	193	178	161	137
100	155	190	200	200	185	170	155	130

Table 84

Longleaf Pine

Stand 7 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Basal area in square feet							
15	------	------	------	1	2	4	8	11
20	------	1	6	13	23	35	49	60
25	------	7	19	34	51	67	84	100
30	4	14	34	54	78	99	114	124
35	8	23	49	74	100	119	130	140
40	13	34	65	91	116	132	143	152
45	18	45	78	104	127	142	153	162
50	23	55	88	114	135	150	161	170
55	28	62	96	122	142	157	168	177
60	34	69	103	128	148	163	174	182
65	39	75	108	134	153	168	178	187
70	44	80	115	138	158	172	182	191
75	49	85	117	142	161	176	186	194
80	53	88	120	145	164	179	188	196
85	56	92	123	148	166	182	191	198
90	59	94	124	150	168	184	192	199
95	61	96	126	151	169	185	193	200
100	62	97	127	152	170	186	194	200

Longleaf Pine

Stand 7 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

International (⅛-inch) Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in board feet							
15				200	400	700	1,200	1,700
20			500	1,000	2,000	3,000	5,000	6,500
25		500	1,500	3,000	5,000	7,500	10,000	12,500
30		1,000	2,500	5,000	8,500	12,500	16,500	19,500
35	500	1,500	4,500	8,000	12,500	17,500	22,500	26,500
40	1,000	2,500	6,000	11,000	17,000	23,000	29,000	35,000
45	1,000	3,500	8,000	14,000	21,000	28,000	36,000	42,000
50	1,500	5,000	10,500	17,500	25,500	33,500	42,500	49,000
55	2,000	6,000	12,500	20,500	29,500	38,500	48,000	55,000
60	2,500	7,000	14,500	23,500	33,500	43,500	52,500	60,500
65	3,000	8,000	16,000	26,000	36,500	47,500	57,500	65,000
70	3,500	9,000	18,000	29,000	40,000	51,000	61,000	69,000
75	4,000	10,000	19,500	31,000	43,000	54,500	65,000	72,500
80	4,500	11,000	21,000	33,500	45,500	58,000	68,500	76,000
85	5,000	12,000	23,000	35,000	48,000	61,000	71,500	80,000
90	5,000	13,000	24,000	37,000	50,000	63,500	74,500	83,000
95	5,500	13,500	25,500	38,500	52,000	66,000	77,500	86,000
100	6,000	14,500	27,000	40,000	54,000	68,000	80,000	89,000

Table 86

Longleaf Pine

Stand 7 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

International (⅛-inch) Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Growth in board feet							
15				13	27	47	80	113
20			25	50	100	150	250	325
25		20	60	120	200	300	400	500
30		33	83	167	283	417	550	650
35	14	43	129	229	357	500	643	757
40	25	62	150	275	425	575	725	875
45	22	78	178	311	467	622	800	933
50	30	100	210	350	510	670	850	980
55	36	109	227	373	536	700	873	1,000
60	42	117	242	392	558	725	875	1,008
65	46	123	246	400	562	731	885	1,000
70	50	129	257	414	571	729	871	986
75	53	133	260	413	573	727	867	967
80	56	138	262	419	569	725	856	950
85	59	141	271	412	565	718	841	941
90	56	144	267	411	556	706	828	922
95	58	142	268	405	547	695	816	905
100	60	145	270	400	540	680	800	890

Longleaf Pine

Stand 8 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Scribner Decimal C Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in board feet							
15	------	------	------	3	30	60	115	170
20	------	2	30	95	190	315	470	640
25	4	35	135	250	445	670	930	1,270
30	20	88	260	485	800	1,185	1,525	2,010
35	43	170	415	770	1,230	1,750	2,230	2,720
40	73	260	595	1,085	1,680	2,315	2,890	3,420
45	105	360	800	1,420	2,110	2,870	3,530	4,130
50	140	465	1,020	1,740	2,520	3,380	4,110	4,780
55	190	570	1,220	2,035	2,900	3,840	4,660	5,380
60	235	680	1,420	2,320	3,280	4,280	5,180	5,950
65	287	785	1,615	2,600	3,620	4,700	5,670	6,480
70	338	890	1,790	2,850	3,920	5,080	6,110	6,950
75	385	995	1,960	3,080	4,220	5,430	6,520	7,390
80	430	1,095	2,120	3,290	4,500	5,750	6,890	7,780
85	480	1,195	2,260	3,485	4,740	6,050	7,230	8,140
90	523	1,285	2,400	3,660	4,960	6,340	7,550	8,480
95	570	1,375	2,520	3,825	5,170	6,600	7,840	8,800
100	610	1,455	2,635	3,980	5,360	6,850	8,100	9,110

Table 88

Longleaf Pine

Stand 8 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Scribner Decimal C Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Growth in board feet							
15	----	----	----	----	2	4	8	11
20	----	----	2	5	10	16	24	32
25	----	1	5	10	18	27	37	51
30	1	3	9	16	27	40	51	67
35	1	5	12	22	35	50	64	78
40	2	6	15	27	42	58	72	86
45	2	8	18	32	47	64	78	92
50	3	9	20	35	50	68	82	96
55	4	10	22	37	53	70	85	98
60	4	11	24	39	55	71	86	99
65	4	12	25	40	56	72	87	100
70	5	13	26	41	56	73	87	99
75	5	13	26	41	56	72	87	98
80	5	14	26	41	56	72	86	97
85	6	14	27	41	56	71	85	96
90	6	14	27	41	55	70	84	94
95	6	14	26	40	54	70	82	93
100	6	15	26	40	54	68	81	91

Longleaf Pine

Stand 9 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Doyle Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in board feet							
15								
20								
25						500	1,000	2,000
30					1,000	2,000	3,500	5,000
35				1,000	2,000	4,000	6,000	8,000
40			500	2,000	4,000	6,500	9,000	12,000
45			1,000	3,000	5,500	9,000	12,500	16,000
50		500	2,000	4,500	7,500	11,500	16,000	20,500
55		500	3,000	6,000	9,500	14,500	19,500	24,500
60		1,000	3,500	7,000	11,500	17,000	23,000	29,000
65		1,500	4,500	8,500	13,500	19,500	26,000	32,000
70	500	2,000	5,000	9,500	15,500	22,500	29,500	36,500
75	500	2,000	6,000	11,000	17,500	25,000	33,000	40,000
80	500	2,500	7,000	12,500	19,500	27,500	36,000	43,500
85	500	3,000	7,500	13,500	21,500	30,000	39,000	46,500
90	1,000	3,500	8,500	15,000	23,500	32,500	41,500	49,000
95	1,000	4,000	9,000	16,500	25,000	34,500	44,000	51,000
100	1,500	4,500	10,000	17,500	26,500	36,500	46,000	53,000

Table 90

Longleaf Pine

Stand 9 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Doyle Rule

Age, years	Site index in feet							
	Growth in board feet							
15								
20								
25						20	40	80
30					33	67	117	167
35				29	57	114	171	229
40			12	50	100	162	225	300
45			22	67	122	200	278	356
50		10	40	90	150	230	320	410
55		9	55	109	173	264	355	445
60		17	58	117	192	283	383	483
65		23	69	131	208	300	400	492
70	7	29	71	136	221	321	421	521
75	7	27	80	147	233	333	440	533
80	6	31	88	156	244	344	450	544
85	6	35	88	159	253	353	459	547
90	11	39	94	167	261	361	461	544
95	11	42	95	174	263	363	463	537
100	15	45	100	175	265	365	460	530

Longleaf Pine

Dominant Stand

Average Diameter at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Diameter in inches							
15	2.5	3.0	3.5	3.8	4.3	4.6	5.1	5.6
20	3.3	3.9	4.5	5.1	5.6	6.1	6.5	6.9
25	3.9	4.7	5.4	6.0	6.6	7.1	7.6	8.2
30	4.5	5.4	6.2	6.8	7.5	8.0	8.6	9.3
35	5.0	5.9	6.8	7.6	8.3	8.9	9.5	10.3
40	5.4	6.4	7.4	8.2	9.0	9.6	10.4	11.2
45	5.8	6.9	7.9	8.8	9.6	10.3	11.1	11.9
50	6.2	7.3	8.4	9.3	10.2	11.0	11.8	12.6
55	6.5	7.7	8.8	9.8	10.7	11.5	12.4	13.2
60	6.8	8.0	9.2	10.2	11.2	12.0	12.9	13.8
65	7.1	8.4	9.6	10.6	11.6	12.5	13.4	14.3
70	7.3	8.7	9.9	11.0	12.0	12.9	13.9	14.8
75	7.5	8.9	10.2	11.3	12.4	13.3	14.3	15.3
80	7.8	9.2	10.6	11.7	12.7	13.7	14.7	15.7
85	8.0	9.5	10.9	12.0	13.0	14.1	15.1	16.1
90	8.2	9.7	11.2	12.3	13.4	14.4	15.4	16.5
95	8.3	9.9	11.5	12.6	13.7	14.7	15.8	16.8
100	8.5	10.2	11.8	12.8	14.0	15.0	16.0	17.0

Table 92

Longleaf Pine

Dominant Stand

Number of Trees Per Acre

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Trees per acre							
15	730	685	650	605	560	495	440	390
20	620	590	560	525	485	445	400	350
25	500	480	460	435	405	370	335	300
30	425	410	390	370	345	315	285	255
35	370	355	340	320	300	275	250	220
40	325	315	305	285	260	240	220	195
45	295	285	275	265	245	220	200	175
50	275	265	255	245	225	205	185	165
55	255	250	240	230	210	195	175	155
60	240	235	225	215	200	185	165	145
65	225	220	215	205	190	175	160	140
70	215	210	200	195	180	165	150	135
75	210	200	195	185	175	160	145	130
80	195	190	185	180	170	155	140	125
85	190	185	180	170	160	150	135	120
90	185	180	175	170	155	145	130	115
95	180	175	170	165	150	140	125	110
100	175	170	165	160	145	135	125	110

Longleaf Pine

Dominant Stand

Basal Area Per Acre at Breastheight

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Basal area in square feet							
15	24	33	41	48	54	57	62	64
20	33	45	57	66	75	81	84	88
25	38	51	64	76	84	91	95	101
30	41	56	70	84	93	100	106	112
35	45	60	76	91	101	109	116	122
40	48	64	81	97	108	117	124	130
45	50	68	86	102	114	123	131	137
50	53	71	90	107	119	129	137	144
55	55	73	94	111	124	134	143	150
60	56	76	97	114	128	139	148	155
65	58	78	99	117	131	142	152	159
70	59	79	101	120	134	146	156	163
75	60	81	103	122	137	149	159	166
80	61	82	105	124	139	151	161	169
85	61	83	106	125	141	154	164	172
90	62	84	107	127	143	156	165	173
95	63	85	108	128	145	157	166	175
100	63	86	109	129	146	158	167	176

Table 94

Longleaf Pine

Dominant Stand

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield in cubic feet							
15	150	300	450	650	850	1,050	1,200	1,300
20	250	450	750	1,000	1,350	1,650	1,900	2,100
25	300	650	1,000	1,400	1,750	2,200	2,600	2,800
30	400	800	1,250	1,750	2,250	2,750	3,250	3,500
35	500	950	1,500	2,100	2,700	3,300	3,900	4,300
40	600	1,100	1,750	2,450	3,200	3,900	4,500	5,000
45	700	1,250	2,000	2,800	3,600	4,450	5,200	5,800
50	750	1,400	2,200	3,100	4,050	5,000	5,800	6,450
55	800	1,500	2,450	3,450	4,500	5,500	6,400	7,100
60	900	1,650	2,650	3,750	4,850	5,950	6,950	7,700
65	1,000	1,750	2,850	4,000	5,200	6,400	7,400	8,250
70	1,000	1,850	3,000	4,250	5,500	6,800	7,900	8,750
75	1,100	1,950	3,200	4,500	5,800	7,150	8,250	9,200
80	1,100	2,000	3,300	4,650	6,050	7,450	8,600	9,550
85	1,150	2,100	3,400	4,850	6,250	7,700	9,000	9,950
90	1,200	2,200	3,500	5,000	6,450	8,000	9,300	10,300
95	1,200	2,250	3,600	5,150	6,650	8,200	9,600	10,600
100	1,250	2,300	3,700	5,300	6,850	8,450	9,900	10,950

Longleaf Pine

Dominant Stand

Yield in Board Feet Per Acre

International (¼-inch) Rule

Age, years	Site index in feet							
	40	50	60	70	80	90	100	110
	Yield per acre in board feet							
15	--------	--------	--------	200	400	700	1,200	1,700
20	--------	--------	500	1,000	2,000	3,500	5,000	6,500
25	--------	--------	1,500	3,000	5,000	7,500	10,000	12,000
30	--------	1,000	3,000	5,500	8,500	12,000	15,000	18,000
35	500	1,500	4,500	8,000	12,000	16,000	20,000	23,500
40	500	2,500	6,000	10,500	15,500	20,500	25,500	29,500
45	1,000	3,500	8,000	13,000	19,000	25,000	31,500	35,000
50	1,500	4,500	10,000	16,000	22,500	29,000	35,500	40,500
55	2,000	5,500	11,500	18,000	25,500	33,000	40,000	45,500
60	2,500	7,000	13,000	20,500	28,000	36,500	44,000	50,000
65	3,000	7,500	14,500	22,500	31,000	39,500	48,000	54,000
70	3,500	8,500	16,000	24,500	33,500	43,000	51,000	57,500
75	4,000	9,500	17,500	26,500	35,500	45,500	54,500	61,000
80	4,500	10,500	18,500	28,000	38,000	48,500	57,000	64,000
85	4,500	11,000	19,500	29,500	40,000	51,000	60,000	67,000
90	5,000	11,500	20,500	31,000	41,500	53,000	62,500	69,500
95	5,500	12,000	21,500	32,000	43,000	55,000	64,500	72,000
100	6,000	12,500	23,000	33,000	44,500	56,500	66,500	74,500

Table 96

Longleaf Pine

Sample Plots

Distribution by Age and Site

Age, years	Site index in feet									
	30	40	50	60	70	80	90	100	110	Total
	Number of plots									
10				1						1
20	1	2	1	6	10	5	4	3	4	36
30		2	3	7	21	19	13	5		70
40			2	3	24	8	1			38
50				6	10	7	3			26
60				6	5	7	1			19
70				2	5	1				8
80				1	2	3				6
90				1						1
100					3	1				4
110						2				2
Total	1	4	6	33	80	53	22	8	4	211

Average Deviations of Individual Plots from Yield Tables

Trees 2 inches in d. b. h. and over:
- Number ..... 25.7 per cent.
- Basal area ..... 14.5 per cent.
- Average d. b. h. ..... 11.3 per cent.
- Volume in cubic feet ..... 17.3 per cent.

Trees 7 inches in d. b. h. and over:
- Volume in board feet, International ¼-inch rule ..... 27.6 per cent

Shortleaf Pine

Total Height of Average Dominant Tree

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Height in feet						
10	10	13	15	18	20	22	25
15	15	19	23	26	30	33	37
20	20	25	30	34	39	44	49
25	24	30	36	42	48	54	60
30	28	35	42	49	56	63	70
35	32	40	47	55	64	71	79
40	35	44	52	61	70	78	87
45	38	47	57	66	75	85	94
50	*40*	*50*	*60*	*70*	*80*	*90*	*100*
55	42	53	63	74	84	95	105
60	44	55	66	77	88	99	110
65	46	57	69	80	91	103	114
70	47	59	71	82	94	106	117
75	49	60	73	85	96	108	120
80	50	62	74	86	99	111	123
85	51	63	76	88	101	113	126
90	52	64	77	90	103	115	128
95	52	65	78	91	104	117	131
100	53	66	79	93	106	119	133

Italicized values are site indices.

Table 98

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Diameter in inches						
15	1.3	1.6	2.2	2.6	3.1	3.8	4.6
20	2.0	2.5	2.9	3.5	4.1	5.0	6.0
25	2.7	3.2	3.8	4.5	5.2	6.2	7.4
30	3.2	3.9	4.6	5.4	6.2	7.3	8.8
35	3.8	4.5	5.4	6.2	7.1	8.4	10.1
40	4.3	5.1	6.0	7.0	8.0	9.4	11.3
45	4.7	5.6	6.6	7.7	8.8	10.3	12.5
50	5.1	6.1	7.2	8.3	9.5	11.2	13.5
55	5.4	6.5	7.7	8.9	10.2	12.1	14.5
60	5.8	6.9	8.2	9.4	10.8	12.8	15.3
65	6.1	7.3	8.6	9.9	11.4	13.5	16.1
70	6.3	7.6	9.0	10.4	11.9	14.1	17.0
75	6.6	8.0	9.4	10.8	12.4	14.7	17.8
80	6.9	8.3	9.8	11.2	12.9	15.3	18.5
85	7.1	8.6	10.1	11.6	13.4	15.9	19.2
90	7.4	8.9	10.4	12.0	13.8	16.4	19.9
95	7.6	9.2	10.8	12.4	14.3	16.9	20.6
100	7.8	9.4	11.1	12.8	14.7	17.4	21.2

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Total Height

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Height in feet						
15	11	14	18	21	24	28	32
20	16	21	26	30	35	40	46
25	20	27	32	38	44	50	57
30	24	32	38	45	53	60	67
35	28	36	44	52	60	68	77
40	32	40	49	57	67	75	85
45	34	44	53	62	72	82	92
50	37	47	57	67	77	88	98
55	39	49	60	71	82	93	104
60	41	52	63	75	85	97	109
65	42	54	66	78	89	101	113
70	44	56	68	80	92	104	117
75	45	57	70	82	94	107	121
80	47	59	72	84	97	110	124
85	48	60	73	86	99	113	127
90	49	61	74	87	101	115	130
95	49	62	76	89	103	117	132
100	50	63	77	90	105	119	134

Table 100

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Trees per acre						
15	11,300	7,700	3,600	2,730	2,040	1,440	970
20	6,000	3,425	2,520	1,965	1,495	1,080	740
25	3,405	2,495	1,905	1,480	1,120	810	550
30	2,565	1,855	1,370	1,060	815	590	405
35	1,955	1,400	1,030	780	610	445	300
40	1,525	1,085	815	625	485	345	235
45	1,260	890	670	515	395	285	190
50	1,055	760	570	440	335	245	170
55	920	660	500	385	290	210	145
60	820	590	445	345	260	185	130
65	740	535	405	315	235	175	120
70	680	485	370	285	215	160	110
75	625	450	335	260	195	150	100
80	580	420	315	240	185	140	90
85	545	390	290	225	180	130	80
90	505	365	275	210	165	120	75
95	470	335	255	195	155	110	70
100	435	315	235	185	145	105	70

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Basal area in square feet						
15	102	108	110	112	113	114	115
20	132	139	142	145	147	148	149
25	145	151	156	158	160	162	164
30	151	158	162	165	167	169	170
35	154	161	165	168	170	172	173
40	154	162	166	169	171	173	174
45	154	162	166	169	171	173	174
50	154	162	166	169	171	173	174
55	154	162	166	169	171	173	174
60	154	162	166	169	171	173	174
65	154	162	166	169	171	173	174
70	154	162	166	169	171	173	174
75	154	162	166	169	171	173	174
80	154	162	166	169	171	173	174
85	154	162	166	169	171	173	174
90	154	162	166	169	171	173	174
95	154	162	166	169	171	173	174
100	154	162	166	169	171	173	174

Table 102

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cubic feet						
15	490	790	1,000	1,290	1,500	1,650	1,800
20	880	1,350	1,720	2,120	2,540	2,820	3,200
25	1,300	1,910	2,460	3,020	3,560	4,000	4,490
30	1,750	2,460	3,140	3,900	4,510	5,120	5,720
35	2,110	2,940	3,750	4,610	5,400	6,160	6,900
40	2,400	3,390	4,300	5,290	6,150	7,050	8,000
45	2,650	3,770	4,790	5,820	6,820	7,800	8,900
50	2,870	4,070	5,150	6,300	7,400	8,490	9,670
55	3,050	4,300	5,450	6,700	7,860	9,030	10,310
60	3,210	4,500	5,720	7,030	8,270	9,510	10,890
65	3,350	4,680	5,960	7,340	8,610	9,920	11,350
70	3,460	4,820	6,180	7,600	8,930	10,300	11,780
75	3,560	4,970	6,360	7,830	9,210	10,620	12,140
80	3,650	5,090	6,530	8,030	9,480	10,920	12,460
85	3,720	5,180	6,670	8,230	9,690	11,190	12,750
90	3,780	5,270	6,800	8,400	9,870	11,410	13,010
95	3,830	5,350	6,900	8,530	10,020	11,640	13,270
100	3,870	5,400	6,980	8,660	10,180	11,820	13,480

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index, in feet						
	40	50	60	70	80	90	100
	Yield in cubic feet						
15	430	620	820	1,010	1,200	1,360	1,560
20	710	1,020	1,350	1,670	2,000	2,260	2,560
25	1,020	1,490	1,940	2,400	2,850	3,300	3,770
30	1,330	1,940	2,500	3,120	3,700	4,270	4,900
35	1,610	2,350	3,040	3,780	4,470	5,170	5,950
40	1,890	2,720	3,520	4,380	5,180	6,000	6,860
45	2,110	3,040	3,950	4,880	5,790	6,680	7,670
50	2,310	3,330	4,280	5,320	6,330	7,300	8,360
55	2,470	3,540	4,580	5,680	6,750	7,800	8,950
60	2,610	3,740	4,840	6,000	7,120	8,230	9,430
65	2,730	3,900	5,060	6,280	7,440	8,590	9,850
70	2,840	4,050	5,280	6,530	7,720	8,920	10,230
75	2,930	4,200	5,440	6,750	7,980	9,200	10,550
80	3,010	4,300	5,600	6,930	8,200	9,470	10,850
85	3,100	4,400	5,730	7,100	8,400	9,700	11,120
90	3,150	4,500	5,850	7,260	8,590	9,920	11,370
95	3,200	4,580	5,960	7,400	8,750	10,120	11,580
100	3,240	4,650	6,060	7,520	8,900	10,270	11,780

Table 104

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cubic Feet

[Total volume—peeled]

Age, years	Site index, in feet						
	40	50	60	70	80	90	100
	Growth in cubic feet						
15	29	41	55	67	80	91	104
20	36	51	68	84	100	113	128
25	41	60	78	96	114	132	151
30	44	65	83	104	123	142	163
35	46	67	87	108	128	148	170
40	47	68	88	110	130	150	172
45	47	68	88	108	129	148	170
50	46	67	86	106	127	146	167
55	45	64	83	103	123	142	163
60	44	62	81	100	119	137	157
65	42	60	78	97	114	132	152
70	41	58	75	93	110	127	146
75	39	56	73	90	106	123	141
80	38	54	70	87	102	118	136
85	36	52	67	84	99	114	131
90	35	50	65	81	95	110	126
95	34	48	63	78	92	107	122
100	32	46	61	75	89	103	118

Shortleaf Pine

Stand 2 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index, in feet						
	40	50	60	70	80	90	100
	Diameter in inches						
15	------	3.6	3.7	3.8	4.6	5.0	5.6
20	3.8	4.1	4.3	4.6	5.0	5.8	6.9
25	4.2	4.6	4.9	5.3	5.9	6.9	8.2
30	4.5	5.0	5.5	6.0	6.7	7.9	9.5
35	4.8	5.5	6.1	6.7	7.5	8.8	10.6
40	5.2	5.9	6.6	7.4	8.3	9.8	11.7
45	5.5	6.4	7.1	8.0	9.0	10.6	12.7
50	5.8	6.8	7.6	8.6	9.7	11.5	13.6
55	6.1	7.2	8.1	9.1	10.4	12.2	14.5
60	6.4	7.5	8.5	9.7	11.0	12.9	15.4
65	6.7	7.9	8.9	10.1	11.5	13.6	16.2
70	7.0	8.2	9.3	10.6	12.0	14.2	17.0
75	7.2	8.5	9.7	11.1	12.5	14.8	17.6
80	7.5	8.8	10.0	11.5	13.0	15.3	18.5
85	7.7	9.1	10.4	11.9	13.5	15.9	19.2
90	8.0	9.4	10.7	12.3	13.9	16.4	19.9
95	8.2	9.6	11.0	12.7	14.3	16.9	20.6
100	8.4	9.9	11.3	13.0	14.7	17.4	21.2

Table 106

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Trees per acre						
15		75	200	330	495	610	605
20	240	440	530	780	860	800	600
25	540	765	920	990	860	660	480
30	780	955	955	825	680	525	370
35	945	930	805	660	540	410	290
40	950	815	680	545	435	330	230
45	880	715	575	460	365	280	190
50	805	630	505	405	320	240	165
55	725	560	450	360	280	205	145
60	665	510	410	330	255	180	130
65	615	470	375	300	230	175	115
70	575	435	345	280	215	160	105
75	540	410	320	255	195	150	95
80	505	380	300	235	185	140	90
85	475	355	280	220	180	130	80
90	450	335	265	205	165	120	75
95	420	315	250	190	155	110	70
100	400	300	230	180	145	105	70

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Basal area in square feet						
5	-----	5	15	26	55	81	104
20	19	66	79	102	123	141	146
25	74	96	121	143	155	159	162
30	96	126	149	161	164	167	169
35	120	146	161	165	168	171	172
40	135	156	163	167	170	172	174
45	144	158	164	167	170	172	174
50	148	159	164	168	170	173	174
55	150	160	165	168	170	173	174
60	151	160	165	168	171	173	174
65	151	160	165	168	171	173	174
70	152	161	165	168	171	173	174
75	152	161	165	169	171	173	174
80	152	161	165	169	171	173	174
85	152	161	166	169	171	173	174
90	152	161	166	169	171	173	174
95	153	161	166	169	171	173	174
100	153	161	166	169	171	173	174

Table 108

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cubic feet						
15					950	1,330	1,760
20			1,060	1,600	2,190	2,660	3,040
25		1,290	2,000	2,760	3,380	3,930	4,440
30	1,160	2,040	2,880	3,720	4,420	5,050	5,720
35	1,660	2,690	3,620	4,520	5,310	6,070	6,900
40	2,130	2,980	4,200	5,210	6,100	7,000	7,940
45	2,460	3,620	4,700	5,770	6,780	7,760	8,860
50	2,730	3,970	5,080	6,250	7,380	8,450	9,650
55	2,940	4,210	5,400	6,650	7,840	9,010	10,320
60	3,120	4,430	5,690	7,000	8,250	9,500	10,860
65	3,260	4,610	5,930	7,300	8,610	10,070	11,350
70	3,380	4,780	6,170	7,580	8,920	10,280	11,780
75	3,480	4,940	6,340	7,820	9,220	10,610	12,150
80	3,570	5,050	6,520	8,020	9,460	10,910	12,500
85	3,670	5,150	6,650	8,210	9,690	11,170	12,810
90	3,720	5,250	6,790	8,380	9,900	11,430	13,090
95	3,770	5,340	6,910	8,540	10,090	11,660	13,330
100	3,810	5,420	7,020	8,680	10,260	11,830	13,560

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cubic feet						
15					750	1,060	1,430
20			840	1,270	1,760	2,160	2,520
25		1,030	1,600	2,230	2,760	3,260	3,750
30	920	1,640	2,340	3,040	3,650	4,240	4,890
35	1,330	2,180	2,960	3,730	4,440	5,150	5,940
40	1,720	2,620	3,470	4,350	5,160	5,990	6,860
45	1,990	2,980	3,910	4,860	5,780	6,680	7,670
50	2,220	3,280	4,250	5,300	6,320	7,300	8,360
55	2,410	3,500	4,560	5,670	6,740	7,800	8,950
60	2,570	3,710	4,820	5,990	7,120	8,230	9,430
65	2,690	3,880	5,050	6,270	7,440	8,590	9,850
70	2,810	4,030	5,270	6,530	7,720	8,920	10,230
75	2,900	4,180	5,440	6,750	7,980	9,200	10,550
80	2,990	4,290	5,590	6,930	8,200	9,470	10,850
85	3,080	4,390	5,720	7,100	8,400	9,700	11,120
90	3,130	4,490	5,850	7,260	8,590	9,920	11,370
95	3,180	4,580	5,960	7,400	8,750	10,120	11,580
100	3,220	4,640	6,060	7,520	8,900	10,270	11,780

Table 110

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Rough wood]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cords						
15	------	------	------	------	11	15	20
20	------	------	12	18	25	30	33
25	------	15	23	31	38	43	47
30	13	23	32	41	48	54	60
35	19	30	40	49	57	64	72
40	24	33	46	56	65	73	82
45	28	40	51	61	71	80	91
50	30	43	54	66	77	87	99
55	32	45	58	70	81	93	106
60	34	48	60	73	85	98	111
65	36	49	62	76	89	103	116
70	37	51	65	79	92	105	121
75	38	52	66	81	95	109	124
80	38	53	68	83	97	112	128
85	39	54	69	84	100	114	131
90	40	55	70	86	102	117	134
95	40	56	71	88	103	119	137
100	40	56	72	89	105	121	139

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Rough wood]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Growth in cords						
15	------	------	------	------	0.73	1.00	1.33
20	------	------	0.60	0.90	1.25	1.50	1.65
25	------	0.60	.92	1.24	1.52	1.72	1.88
30	0.43	.77	1.07	1.37	1.60	1.80	2.00
35	.54	.86	1.14	1.40	1.63	1.83	2.06
40	.60	.82	1.15	1.40	1.62	1.82	2.05
45	.62	.89	1.13	1.36	1.58	1.78	2.02
50	.60	.86	1.08	1.32	1.54	1.74	1.98
55	.58	.82	1.05	1.27	1.47	1.69	1.93
60	.57	.80	1.00	1.22	1.42	1.63	1.85
65	.55	.75	.95	1.17	1.37	1.58	1.78
70	.53	.73	.93	1.13	1.31	1.50	1.73
75	.51	.69	.88	1.08	1.27	1.45	1.65
80	.48	.66	.85	1.04	1.21	1.40	1.60
85	.46	.64	.81	.99	1.18	1.34	1.54
90	.44	.61	.78	.96	1.13	1.30	1.49
95	.42	.59	.75	.93	1.08	1.25	1.44
100	.40	.56	.72	.89	1.05	1.21	1.39

Table 112

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Peeled wood]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cords						
15					9	12	16
20			10	15	20	24	27
25		12	18	25	31	35	40
30	11	19	26	34	40	45	51
35	15	24	33	41	48	54	62
40	19	29	38	47	55	62	71
45	22	33	42	52	61	69	79
50	25	36	46	56	66	75	86
55	27	38	48	60	70	80	92
60	28	40	51	63	74	85	97
65	29	41	53	65	77	88	101
70	30	43	55	68	80	92	105
75	31	44	57	70	82	94	108
80	32	45	58	71	84	97	111
85	33	46	59	73	86	99	114
90	33	47	61	75	88	102	116
95	34	48	62	76	90	104	119
100	34	48	62	77	91	105	121

Shortleaf Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Peeled wood]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Growth in cords						
15	------	------	------	------	0.60	0.80	1.07
20	------	------	0.50	0.75	1.00	1.20	1.35
25	------	0.48	.72	1.00	1.24	1.40	1.60
30	0.37	.63	.87	1.13	1.33	1.50	1.70
35	.43	.69	.94	1.17	1.37	1.54	1.77
40	.48	.72	.95	1.18	1.38	1.55	1.78
45	.49	.73	.93	1.16	1.36	1.53	1.76
50	.50	.72	.92	1.12	1.32	1.50	1.72
55	.49	.69	.87	1.09	1.27	1.45	1.67
60	.47	.67	.85	1.05	1.23	1.42	1.62
65	.45	.63	.82	1.00	1.18	1.35	1.55
70	.43	.61	.79	.97	1.14	1.31	1.50
75	.41	.59	.76	.93	1.09	1.25	1.44
80	.40	.56	.72	.89	1.05	1.21	1.39
85	.39	.54	.69	.86	1.01	1.16	1.34
90	.37	.52	.68	.83	.98	1.13	1.29
95	.36	.51	.65	.80	.95	1.09	1.25
100	.34	.48	.62	.77	.91	1.05	1.21

Table 114

Shortleaf Pine

Stand 7 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Diameter in inches						
15						7.5	7.8
20				7.1	7.3	7.6	8.1
25		7.0	7.2	7.4	7.7	8.2	8.9
30	7.0	7.2	7.5	7.8	8.2	8.8	9.8
35	7.2	7.4	7.8	8.2	8.7	9.5	10.8
40	7.3	7.7	8.1	8.6	9.2	10.3	11.8
45	7.5	7.9	8.3	9.0	9.8	11.0	12.7
50	7.7	8.1	8.7	9.4	10.4	11.7	13.7
55	7.8	8.3	9.0	9.8	10.9	12.4	14.6
60	7.9	8.5	9.3	10.2	11.3	13.1	15.4
65	8.1	8.7	9.6	10.6	11.8	13.7	16.1
70	8.2	9.0	9.9	11.0	12.3	14.2	16.9
75	8.3	9.2	10.2	11.3	12.7	14.8	17.6
80	8.5	9.4	10.5	11.7	13.2	15.4	18.3
85	8.7	9.6	10.8	12.0	13.6	15.9	19.0
90	8.8	9.8	11.1	12.4	14.0	16.4	19.6
95	9.0	10.0	11.3	12.7	14.4	16.9	20.2
100	9.1	10.2	11.6	13.0	14.8	17.4	20.8

Shortleaf Pine

Stand 7 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Trees per acre						
15	----	----	----	----	----	20	65
20	----	----	----	20	70	150	245
25	----	5	40	115	195	290	325
30	5	50	120	225	300	325	305
35	45	110	215	295	320	305	255
40	90	175	265	315	315	280	215
45	130	220	295	320	295	245	185
50	170	260	305	305	275	220	160
55	200	280	310	295	250	200	140
60	230	295	305	280	235	175	130
65	250	300	300	265	220	170	120
70	270	300	285	250	205	155	110
75	285	300	275	230	190	145	100
80	290	290	260	220	180	135	90
85	295	285	250	205	170	130	80
90	290	280	240	195	160	120	75
95	285	270	225	185	150	110	70
100	275	255	210	180	145	105	70

Table 116

Shortleaf Pine

Stand 7 Inches Diameter Breast High and Over

Basal Area Per Acre at Breast Height

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Basal area in square feet						
15						6	22
20				6	19	50	88
25		1	13	34	62	104	137
30	1	15	38	73	107	139	159
35	13	34	73	107	135	157	167
40	26	59	98	132	152	165	171
45	41	79	119	146	160	168	172
50	56	100	134	153	163	170	173
55	68	113	144	158	166	171	174
60	83	124	150	161	167	172	174
65	95	133	153	163	168	172	174
70	102	139	156	165	169	172	174
75	111	144	158	165	169	173	174
80	118	147	160	166	170	173	174
85	123	150	161	166	170	173	174
90	128	152	162	167	170	173	174
95	132	153	162	167	170	173	174
100	135	155	163	168	171	173	174

Shortleaf Pine

Stand 7 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

International (⅛-inch) Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in board feet						
15						200	1,400
20				250	1,600	3,800	7,600
25			800	2,800	5,700	10,700	16,800
30		900	3,300	6,900	11,800	18,900	26,200
35	600	2,800	6,600	12,000	18,800	27,000	34,700
40	1,750	5,000	10,300	17,800	25,500	33,400	41,800
45	3,000	7,500	14,300	23,000	30,900	39,200	48,200
50	4,300	9,900	18,300	27,200	35,600	44,250	53,800
55	5,650	12,400	21,700	30,700	39,300	48,500	58,400
60	6,900	14,900	24,500	33,500	42,600	52,250	62,500
65	8,300	17,200	26,700	36,000	45,400	55,300	66,300
70	9,600	19,000	28,700	38,200	47,900	58,100	69,500
75	10,800	20,600	30,500	40,200	50,100	60,600	72,300
80	12,000	22,000	32,000	42,000	52,000	62,800	74,800
85	13,000	23,200	33,300	43,700	53,800	65,000	76,800
90	14,000	24,300	34,600	45,200	55,500	66,800	78,800
95	14,900	25,300	35,700	46,500	57,100	68,600	80,300
100	15,600	26,000	36,600	47,800	58,500	70,100	81,600

Table 118

Shortleaf Pine

Stand 7 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

International (⅛-inch) Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Growth in board feet						
15						13	93
20				12	80	190	380
25			32	112	228	428	672
30		30	110	230	393	630	873
35	17	80	189	343	537	771	991
40	44	125	258	445	638	835	1,045
45	67	167	318	511	687	871	1,071
50	86	198	366	544	712	885	1,076
55	103	225	395	558	715	882	1,062
60	115	248	408	558	710	871	1,042
65	128	265	411	544	698	851	1,020
70	137	271	410	546	684	830	993
75	144	275	407	536	668	808	964
80	150	275	400	525	650	785	935
85	153	273	392	514	633	765	904
90	156	270	384	502	617	742	876
95	157	266	376	489	601	722	845
100	156	260	366	478	585	701	816

Shortleaf Pine

Stand 8 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Scribner Decimal C Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in board feet						
15						10	185
20				25	180	400	780
25			80	245	540	985	1,690
30		75	285	650	1,180	1,850	2,620
35	65	250	630	1,210	1,890	2,640	3,440
40	160	470	1,040	1,790	2,530	3,330	4,160
45	265	730	1,450	2,250	3,070	3,910	4,790
50	390	1,010	1,840	2,665	3,530	4,410	5,320
55	520	1,260	2,150	3,025	3,900	4,820	5,780
60	680	1,495	2,415	3,330	4,230	5,180	6,190
65	830	1,705	2,635	3,580	4,520	5,490	6,540
70	965	1,885	2,835	3,800	4,760	5,760	6,850
75	1,090	2,045	3,010	4,000	4,980	6,010	7,120
80	1,200	2,180	3,170	4,180	5,180	6,240	7,360
85	1,300	2,300	3,310	4,350	5,360	6,440	7,580
90	1,390	2,400	3,430	4,490	5,520	6,610	7,780
95	1,470	2,495	3,540	4,620	5,670	6,770	7,960
100	1,540	2,570	3,635	4,730	5,800	6,900	8,120

Table 120

Shortleaf Pine

Stand 8 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Scribner Decimal C Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Growth in board feet						
15	------	------	------	------	------	1	12
20	------	------	------	1	9	20	39
25	------	------	3	10	22	39	68
30	------	2	10	22	39	62	87
35	2	7	18	35	54	75	98
40	4	12	26	45	63	83	104
45	6	16	32	50	68	87	106
50	8	20	37	53	71	88	106
55	10	23	39	55	71	88	105
60	11	25	40	56	70	86	103
65	13	26	40	55	70	84	101
70	14	27	40	54	68	82	98
75	14	27	40	53	66	80	95
80	15	27	40	52	65	78	92
85	15	27	39	51	63	76	89
90	15	27	38	50	61	73	86
95	16	26	37	49	60	71	84
100	15	26	36	47	58	69	81

Shortleaf Pine

Stand 9 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Doyle Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in board feet						
15							
20							1,150
25					500	1,750	4,250
30				750	1,950	4,550	9,050
35			750	2,000	4,300	8,650	14,150
40			1,550	4,000	7,650	12,600	19,400
45		900	2,750	6,400	10,700	16,450	24,750
50		1,600	4,350	8,650	13,550	20,450	29,500
55	600	2,300	6,000	10,800	16,350	24,200	33,850
60	950	3,200	7,600	12,600	18,850	27,400	37,250
65	1,300	4,150	8,950	14,450	21,300	30,300	40,300
70	1,600	5,050	10,250	16,250	23,450	32,850	42,950
75	2,050	6,200	11,400	17,900	25,550	35,150	45,250
80	2,600	7,000	12,700	19,400	27,550	37,400	47,200
85	3,000	7,800	13,650	20,850	29,400	39,400	48,950
90	3,550	8,550	14,550	22,300	31,000	40,950	50,500
95	4,000	9,250	15,800	23,700	32,650	42,400	51,650
100	4,450	9,750	16,750	25,050	34,000	43,650	52,750

Table 122

Shortleaf Pine

Stand 9 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Doyle Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Growth in board feet						
15							
20							58
25					20	70	170
30				25	65	152	302
35			21	57	123	247	404
40			39	100	191	315	485
45		20	61	142	238	366	550
50		32	87	173	271	409	590
55	11	42	109	196	297	440	615
60	16	53	127	210	314	457	621
65	20	64	138	222	328	466	620
70	23	72	146	232	335	469	614
75	27	83	152	239	341	469	603
80	32	88	159	242	344	468	590
85	35	92	161	245	346	464	576
90	39	95	162	248	344	455	561
95	42	97	166	249	344	446	544
100	44	98	168	250	340	436	528

Shortleaf Pine

Dominant Stand

Average Diameter at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Diameter in inches						
15	2.2	2.5	2.9	3.5	4.0	4.6	5.5
20	2.8	3.2	5.8	4.5	5.2	6.1	7.3
25	3.5	4.0	4.7	5.5	6.4	7.5	8.9
30	4.1	4.8	5.7	6.6	7.5	8.8	10.4
35	4.7	5.5	6.5	7.5	8.6	9.9	11.7
40	5.2	6.1	7.3	8.4	9.5	10.9	12.8
45	5.7	6.8	8.0	9.1	10.3	11.8	13.8
50	6.2	7.3	8.4	9.8	11.1	12.6	14.7
55	6.6	7.8	9.2	10.4	11.7	13.3	15.4
60	7.0	8.3	9.7	11.0	12.3	14.0	16.2
65	7.4	8.7	10.2	11.5	12.8	14.6	16.9
70	7.7	9.1	10.6	12.0	13.3	15.2	17.5
75	8.0	9.5	11.0	12.4	13.8	15.7	18.1
80	8.3	9.9	11.4	12.8	14.2	16.2	18.6
85	8.5	10.2	11.7	13.1	14.6	16.6	19.1
90	8.8	10.5	12.0	13.4	15.0	17.0	19.5
95	9.0	10.8	12.3	13.7	15.3	17.4	19.9
100	9.2	11.0	12.5	13.9	15.6	17.8	20.2

Table 124

Shortleaf Pine

Dominant Stand

Number of Trees Per Acre

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Trees per acre						
15	2,170	1,830	1,420	1,075	825	630	450
20	1,690	1,395	1,065	850	665	500	355
25	1,410	1,080	835	675	535	400	290
30	1,105	815	625	505	410	310	230
35	850	640	490	390	325	250	190
40	690	520	400	320	265	205	155
45	580	435	340	275	225	175	135
50	500	375	300	245	200	160	125
55	440	335	270	220	180	145	115
60	400	305	245	200	165	135	105
65	365	280	225	190	150	130	100
70	340	260	210	175	145	125	95
75	320	245	200	165	140	120	85
80	300	230	190	160	135	115	75
85	280	220	180	150	130	105	70
90	265	210	170	145	125	100	65
95	250	195	165	140	120	90	60
100	235	190	160	135	115	90	60

Shortleaf Pine

Dominant Stand

Basal Area Per Acre at Breastheight

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Basal area in square feet						
15	59	63	66	69	72	75	78
20	85	90	94	97	100	103	108
25	95	101	106	110	114	118	124
30	101	108	113	118	122	127	134
35	105	112	118	123	127	133	140
40	107	115	121	126	131	138	146
45	108	117	123	129	134	142	150
50	109	118	125	131	137	145	154
55	110	120	127	133	139	148	157
60	111	121	128	135	142	150	160
65	112	122	130	137	144	153	163
70	113	124	131	139	146	155	166
75	114	125	133	140	148	157	168
80	115	126	134	142	150	159	170
85	116	127	135	143	151	161	172
90	116	128	136	144	153	162	174
95	117	129	137	146	154	164	176
100	118	130	138	147	155	165	177

Table 126

Shortleaf Pine

Dominant Stand

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in cubic feet						
15	300	420	570	720	860	980	1,140
20	500	720	980	1,200	1,460	1,700	1,990
25	730	1,080	1,420	1,780	2,170	2,540	3,000
30	950	1,420	1,880	2,380	2,870	3,390	4,020
35	1,190	1,750	2,300	2,950	3,540	4,200	5,030
40	1,400	2,050	2,730	3,460	4,160	4,960	5,960
45	1,600	2,330	3,100	3,920	4,750	5,660	6,820
50	1,760	2,570	3,410	4,320	5,270	6,270	7,550
55	1,890	2,780	3,690	4,670	5,730	6,840	8,200
60	2,010	2,960	3,920	4,980	6,090	7,330	8,740
65	2,120	3,120	4,140	5,270	6,430	7,760	9,220
70	2,220	3,270	4,330	5,520	6,770	8,150	9,640
75	2,310	3,390	4,510	5,760	7,050	8,480	10,000
80	2,390	3,500	4,680	5,960	7,320	8,800	10,320
85	2,450	3,600	4,830	6,160	7,560	9,080	10,590
90	2,510	3,700	4,970	6,340	7,800	9,320	10,810
95	2,570	3,790	5,090	6,510	8,020	9,530	11,000
100	2,610	3,850	5,200	6,680	8,220	9,720	11,180

Shortleaf Pine

Dominant Stand

Yield in Board Feet Per Acre

International (⅛-inch) Rule

Age, years	Site index in feet						
	40	50	60	70	80	90	100
	Yield in board feet						
15						200	1,400
20				250	1,600	3,800	7,500
25			800	2,800	5,700	10,500	14,950
30		900	3,300	6,900	11,550	17,000	23,050
35	600	2,800	6,600	11,750	17,100	23,750	30,900
40	1,750	5,000	10,200	16,400	22,450	29,750	37,600
45	3,000	7,500	13,600	20,250	27,200	35,300	43,850
50	4,200	9,800	16,600	23,800	31,600	40,000	49,000
55	5,650	11,900	19,250	27,000	35,200	44,200	53,600
60	6,900	13,800	21,500	29,700	38,200	47,500	57,300
65	8,100	15,400	23,600	32,000	40,800	50,400	60,800
70	9,200	16,900	25,300	34,100	43,200	53,200	63,750
75	10,150	18,200	26,900	35,900	45,300	55,500	66,250
80	11,050	19,400	28,300	37,700	47,250	57,700	68,400
85	11,900	20,500	29,600	39,200	49,000	59,500	70,300
90	12,600	21,400	30,750	40,700	50,700	61,000	72,000
95	13,300	22,300	31,850	42,000	52,200	62,900	73,500
100	14,000	23,100	32,900	43,300	53,500	63,700	74,750

Table 128

Shortleaf Pine

Sample Plots

Distribution by Age and Site

Age, years	Site index in feet						
	50	60	70	80	90	100	Total
	Number of plots						
20		5	7	9	2		23
30	1	10	12	4	1		28
40	2	14	18	4	4	1	43
50	1	6	8	8	7	1	31
60	1	14	13	6	1		35
70		7	2	7			16
80			8	1			9
90			2	1			3
Total	5	56	70	40	15	2	188

Average Deviations of Individual Plots from Yield Tables

Trees 2 inches in d. b. h. and over:
- Number ..... 27.1 per cent.
- Basal area ..... 11.6 per cent.
- Average d. b. h. ..... 21.8 per cent.
- Volume in cubic feet ..... 13.1 per cent.

Trees 7 inches in d. b. h. and over:
- Volume in board feet, International ¼-inch rule ..... 22.6 per cent

Slash Pine

Total Height of Average Dominant Tree

Age, years	Site index in feet				
	60	70	80	90	100
	Height in feet				
15	29	34	39	43	48
20	36	42	48	54	61
25	42	49	56	63	71
30	48	56	63	71	79
35	52	61	69	77	86
40	55	64	73	83	92
45	68	67	77	87	96
50	*60*	*70*	*80*	*90*	*100*
55	62	72	83	93	103
60	64	74	85	95	106

Italicized values are site indices.

Table 130

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Diameter in inches				
15	3.0	3.6	4.1	4.8	5.5
20	3.5	4.2	4.9	5.6	6.4
25	4.3	5.1	5.9	6.8	7.8
30	5.0	6.0	7.0	8.0	9.1
35	5.7	6.8	7.9	9.1	10.3
40	6.3	7.5	8.7	10.0	11.4
45	6.8	8.1	9.4	10.8	12.3
50	7.2	8.6	10.0	11.4	13.1
55	7.6	9.0	10.4	12.0	13.7
60	7.9	9.4	10.8	12.5	14.2

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Average Total Height

Age, years	Site index in feet				
	60	70	80	90	100
	Height in feet				
15	27	33	38	43	47
20	33	40	46	52	57
25	38	46	53	60	66
30	43	52	60	68	74
35	47	57	66	75	82
40	51	62	71	80	88
45	54	65	75	85	93
50	56	68	78	88	97
55	58	70	80	91	100
60	59	71	82	93	102

Table 132

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet				
	60	70	80	90	100
	Trees per acre				
15	2,620	1,855	1,390	1,065	835
20	2,035	1,445	1,090	835	625
25	1,545	1,110	825	635	495
30	1,140	820	610	470	365
35	870	615	460	355	270
40	710	500	380	295	225
45	615	435	330	250	195
50	550	390	295	220	175
55	500	360	270	205	160
60	470	335	250	195	150

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Basal Area per Acre at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Basal area in square feet				
15	124	127	129	130	131
20	143	146	148	149	150
25	148	152	154	155	156
30	152	156	158	159	160
35	154	158	160	161	162
40	155	159	161	163	164
45	156	160	162	164	165
50	157	161	163	165	166
55	158	161	164	165	166
60	158	162	164	166	167

Table 134

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cubic feet				
15	2,200	2,750	3,200	3,500	3,850
20	2,700	3,250	3,800	4,250	4,650
25	3,100	3,750	4,400	4,950	5,400
30	3,500	4,250	4,950	5,550	6,100
35	3,850	4,650	5,450	6,150	6,750
40	4,150	5,000	5,850	6,650	7,350
45	4,350	5,350	6,250	7,100	7,900
50	4,600	5,650	6,600	7,500	8,300
55	4,750	5,900	6,900	7,850	8,700
60	4,900	6,100	7,150	8,100	8,950

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cubic feet				
15	1,400	1,800	2,150	2,450	2,750
20	1,800	2,250	2,700	3,100	3,500
25	2,150	2,700	3,250	3,700	4,150
30	2,500	3,150	3,750	4,300	4,800
35	2,800	3,500	4,250	4,850	5,400
40	3,050	3,850	4,600	5,300	5,950
45	3,250	4,150	4,950	5,700	6,400
50	3,500	4,400	5,300	6,050	6,750
55	3,650	4,600	5,500	6,350	7,100
60	3,800	4,800	5,750	6,550	7,350

Table 136

Slash Pine

Stand 2 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cubic Feet

[Total volume—peeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in cubic feet				
15	93	120	143	163	183
20	90	112	135	155	175
25	86	108	130	148	166
30	83	105	125	143	160
35	80	100	121	139	154
40	76	96	115	132	149
45	72	92	110	127	142
50	70	88	106	121	135
55	66	84	100	115	129
60	63	80	96	109	122

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Diameter in inches				
15	4.3	4.8	5.2	5.6	6.1
20	4.7	5.1	5.6	6.1	6.8
25	5.2	5.8	6.4	7.1	8.0
30	5.7	6.4	7.2	8.2	9.2
35	6.2	7.1	8.0	9.2	10.3
40	6.7	7.7	8.8	10.1	11.4
45	7.1	8.3	9.5	10.8	12.3
50	7.5	8.8	10.0	11.4	13.1
55	7.8	9.1	10.4	12.0	13.7
60	8.1	9.4	10.8	12.5	14.2

Table 138

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet				
	60	70	80	90	100
	Trees per acre				
15	475	700	710	685	610
20	835	840	765	665	545
25	925	805	675	570	470
30	810	685	555	450	355
35	700	555	440	350	270
40	615	475	370	290	225
45	550	420	325	250	195
50	505	375	290	220	175
55	470	343	270	205	160
60	445	325	250	195	150

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Basal area in square feet				
15	51	85	101	113	119
20	99	121	134	141	146
25	125	140	149	152	154
30	139	150	154	157	159
35	146	155	158	160	162
40	151	157	160	162	164
45	153	159	162	164	165
50	155	160	163	165	166
55	156	161	164	165	166
60	156	161	164	166	167

Table 140

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—unpeeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cubic feet				
15	1,250	2,050	2,650	3,200	3,700
20	1,850	2,750	3,400	4,050	4,600
25	2,550	3,400	4,200	4,800	5,350
30	3,150	4,000	4,850	5,550	6,100
35	3,650	4,500	5,400	6,150	6,750
40	4,050	4,850	5,850	6,650	7,350
45	4,400	5,300	6,250	7,100	7,900
50	4,600	5,600	6,600	7,500	8,300
55	4,750	5,850	6,900	7,850	8,700
60	4,900	6,050	7,150	8,100	8,950

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cubic feet				
15	800	1,350	1,800	2,250	2,650
20	1,300	1,950	2,500	3,000	3,450
25	1,850	2,550	3,150	3,700	4,150
30	2,300	3,050	3,750	4,300	4,800
35	2,700	3,500	4,250	4,850	5,400
40	3,000	3,850	4,600	5,300	5,950
45	3,250	4,150	4,950	5,700	6,400
50	3,500	4,400	5,300	6,050	6,750
55	3,650	4,600	5,500	6,350	7,100
60	3,800	4,800	5,750	6,550	7,350

Table 142

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Rough wood]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cords				
15	12	21	27	32	37
20	20	28	35	41	46
25	26	34	42	48	53
30	32	40	48	54	59
35	36	46	54	60	66
40	40	49	58	66	72
45	43	53	62	70	77
50	45	55	65	73	81
55	47	57	67	76	84
60	48	59	69	78	86

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Rough wood]

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in cords				
15	.80	1.40	1.80	2.13	2.47
20	1.00	1.40	1.75	2.05	2.30
25	1.04	1.36	1.68	1.92	2.12
30	1.07	1.33	1.60	1.80	1.97
35	1.03	1.31	1.54	1.71	1.89
40	1.00	1.22	1.45	1.65	1.80
45	.96	1.18	1.38	1.56	1.71
50	.90	1.10	1.30	1.46	1.62
55	.85	1.04	1.22	1.38	1.53
60	.80	.98	1.15	1.30	1.43

Table 44

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Yield in Cords Per Acre

[Peeled wood]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cords				
15	9	14	19	24	28
20	14	20	25	30	35
25	18	25	31	37	41
30	23	30	37	42	47
35	27	35	42	48	53
40	30	38	45	52	58
45	32	41	49	56	62
50	34	43	51	59	66
55	36	45	54	61	68
60	37	47	56	63	71

Slash Pine

Stand 4 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Cords

[Peeled wood]

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in cords				
15	.60	.93	1.27	1.60	1.87
20	.70	1.00	1.25	1.50	1.75
25	.72	1.00	1.24	1.48	1.64
30	.77	1.00	1.23	1.40	1.57
35	.77	1.00	1.20	1.37	1.51
40	.75	.95	1.12	1.30	1.45
45	.71	.91	1.09	1.24	1.38
50	.68	.86	1.02	1.18	1.32
55	.65	.82	.98	1.11	1.24
60	.62	.78	.93	1.05	1.18

Table 146

Slash Pine

Stand 7 Inches Diameter Breast High and Over

Average Diameter at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Diameter in inches				
15		7.1	7.2	7.4	7.6
20	7.1	7.3	7.5	7.8	8.2
25	7.3	7.6	7.9	8.4	8.9
30	7.6	8.0	8.4	9.1	9.8
35	7.9	8.4	8.9	9.8	10.8
40	8.2	8.8	9.5	10.5	11.6
45	8.4	9.1	10.0	11.1	12.4
50	8.6	9.4	10.4	11.6	13.1
55	8.8	9.7	10.8	12.1	13.7
60	9.0	10.0	11.1	12.6	14.2

Slash Pine

Stand 7 Inches Diameter Breast High and Over

Number of Trees Per Acre

Age, years	Site index in feet				
	60	70	80	90	100
	Trees per acre				
15	------	25	55	95	115
20	40	85	150	220	255
25	110	190	265	305	330
30	175	275	305	325	300
35	245	295	305	295	240
40	275	305	295	260	210
45	295	305	280	230	185
50	305	300	260	210	170
55	315	295	245	195	160
60	320	285	230	185	150

Table 148

Slash Pine

Stand 7 Inches Diameter Breast High and Over

Basal Area Per Acre at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Basal area in square feet				
15	------	8	16	28	40
20	11	27	47	74	100
25	30	59	88	114	133
30	53	93	118	138	150
35	81	116	136	151	158
40	101	130	148	158	162
45	114	140	154	161	154
50	124	147	158	163	166
55	131	151	160	164	167
60	136	154	161	165	167

Slash Pine

Stand 7 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

International (¼-inch) Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in board feet				
15		700	1,500	3,100	5,400
20	500	2,000	4,000	6,500	10,500
25	2,000	4,500	8,000	13,000	17,500
30	4,000	8,000	13,000	18,500	24,000
35	6,000	11,500	17,500	24,000	29,500
40	8,500	15,000	22,000	28,500	34,500
45	11,000	18,000	25,500	32,000	38,500
50	13,000	20,500	28,000	35,000	41,000
55	14,500	22,500	30,500	37,500	43,500
60	16,000	24,000	32,000	39,500	45,500

Table 150

Slash Pine

Stand 7 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

International (1/8-inch) Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in board feet				
15		47	100	207	360
20	25	100	200	325	525
25	80	180	320	520	700
30	133	267	433	617	800
35	171	329	500	686	843
40	212	375	550	712	862
45	244	400	567	711	856
50	260	410	560	700	820
55	264	409	555	682	791
60	267	400	533	658	758

Slash Pine

Stand 8 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Scribner Decimal C Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in board feet				
15			68	245	484
20		94	299	583	960
25	95	354	715	1,175	1,664
30	315	720	1,240	1,785	2,337
35	555	1,097	1,740	2,335	2,945
40	808	1,443	2,130	2,805	3,459
45	1,034	1,753	2,488	3,202	3,880
50	1,231	2,011	2,795	3,516	4,232
55	1,405	2,215	3,040	3,805	4,525
60	1,560	2,399	3,230	4,025	4,763

Table 152

Slash Pine

Stand 8 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Scribner Decimal C Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in board feet				
15			4	16	32
20		5	15	29	48
25	4	14	29	47	67
30	10	24	41	60	78
35	16	31	50	67	84
40	20	36	53	70	86
45	23	39	55	71	86
50	25	40	56	70	85
55	26	40	55	69	82
60	26	40	54	67	79

Slash Pine

Stand 9 Inches Diameter Breast High and Over

Yield in Board Feet Per Acre

Doyle Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in board feet				
15					
20					1,000
25				1,500	3,500
30		500	1,500	4,000	7,000
35		1,500	3,500	7,000	11,000
40	500	2,500	6,000	10,000	14,500
45	1,500	4,000	8,000	12,500	17,500
50	2,000	5,500	10,000	15,000	19,500
55	3,000	6,500	11,500	16,500	21,500
60	3,500	7,500	12,500	18,000	23,000

Table 154

Slash Pine

Stand 9 Inches Diameter Breast High and Over

Average Yearly Growth Per Acre in Board Feet

Doyle Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Growth in board feet				
15					
20					50
25				60	140
30		17	50	133	233
35		43	100	200	314
40	12	62	150	250	362
45	33	89	178	278	389
50	40	110	200	300	390
55	55	118	209	300	391
60	58	125	208	300	383

Slash Pine

Dominant Stand

Average Diameter at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Diameter in inches				
15	3.9	4.6	5.2	5.9	6.6
20	4.4	5.2	6.0	6.8	7.7
25	5.3	6.3	7.2	8.1	9.2
30	6.1	7.3	8.3	9.4	10.5
35	6.9	8.1	9.2	10.5	11.7
40	7.6	8.9	10.1	11.4	12.8
45	8.1	9.5	10.8	12.2	13.7
50	8.6	10.0	11.4	12.9	14.5
55	9.0	10.4	11.8	13.4	15.0
60	9.3	10.8	12.2	13.9	15.5

Table 156

Slash Pine

Dominant Stand

Number of Trees Per Acre

Age, years	Site index in feet				
	60	70	80	90	100
	Trees per acre				
15	1,050	780	605	475	385
20	865	640	500	400	320
25	685	510	400	320	255
30	530	400	310	250	205
35	420	315	250	205	165
40	350	265	210	175	140
45	315	235	190	155	125
50	285	220	175	140	115
55	265	205	160	130	110
60	255	195	155	125	105

Slash Pine

Dominant Stand

Basal Area Per Acre at Breastheight

Age, years	Site index in feet				
	60	70	80	90	100
	Basal area in square feet				
15	82	85	87	89	90
20	96	99	102	105	108
25	101	106	109	112	115
30	105	111	114	118	122
35	108	114	118	123	127
40	111	117	122	127	131
45	113	119	124	130	134
50	115	121	126	132	137
55	116	123	128	134	139
60	117	124	130	135	141

Table 158

Slash Pine

Dominant Stand

Yield in Cubic Feet Per Acre

[Total volume—peeled]

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in cubic feet				
15	1,000	1,350	1,600	1,850	2,100
20	1,300	1,700	2,050	2,350	2,700
25	1,600	2,050	2,500	2,900	3,300
30	1,850	2,400	2,900	3,400	3,850
35	2,100	2,700	3,300	3,850	4,400
40	2,350	3,000	3,700	4,300	4,900
45	2,550	3,300	4,000	4,700	5,350
50	2,750	3,500	4,300	5,000	5,700
55	2,900	3,700	4,500	5,300	6,000
60	3,000	3,850	4,700	5,500	6,300

Slash Pine

Dominant Stand

Yield in Board Feet Per Acre

International (¼-inch) Rule

Age, years	Site index in feet				
	60	70	80	90	100
	Yield in board feet				
15	----	700	1,500	3,100	5,400
20	500	2,000	4,000	6,500	9,000
25	2,000	4,500	7,500	12,000	15,500
30	4,000	7,500	12,000	16,500	20,500
35	6,000	11,000	16,000	20,500	25,500
40	8,500	14,000	19,000	24,000	30,000
45	10,500	16,000	22,000	27,500	33,500
50	12,000	18,000	24,000	30,500	36,000
55	13,500	19,500	26,000	32,500	38,500
60	14,000	21,000	27,500	34,500	40,500

Table 160

Slash Pine

Sample Plots

Distribution by Age and Site

Age, years	Site index in feet							
	50	60	70	80	90	100	110	Total
	Number of plots							
10		2	1	1	2		1	7
20	1	5	9	11	8	5		39
30		1	7	9	9	2		28
40			2	9	10	2		23
50		1	1	3	2			7
60				1	2			3
70				1				1
80				1				1
90								
100			2					2
Total	1	9	22	36	33	9	1	111

Average deviations of individual plots from yield tables

Trees 2 inches in d. b. h. and over:	
Number	25.5 per cent.
Basal area	12.3 per cent.
Average d. b. h.	10.6 pre cent.
Volume in cubic feet	14.5 per cent.
Trees 7 inches in d. b. h. and over:	
Volume in board feet, international ¼-inch rule	22.9 per cent.

STAND TABLES FOR SECOND-GROWTH SOUTHERN PINES

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TABLE 161.—*Stand table for southern pines, normal stands, all sites*

LOBLOLLY PINE

Diameter breast high of average tree in stand, inches	Percentage of all trees in and above given diameter breast-high class												
	2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches	18 inches	20 inches	22 inches	24 inches	26 inches
	P. ct.	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*
4	100	52	10	1									
5	100	72	29	5									
6	100	85	49	16	2								
7	100	90	66	32	9	1							
8	100	94	78	49	20	5							
9	100	97	86	63	34	13	3						
10	100	98	91	74	47	23	7	2					
11	100	99	94	82	60	34	15	4	1				
12	100	99	96	88	70	47	24	9	3	1			
13		100	98	92	79	59	35	16	6	2			
14		100	99	95	85	68	46	25	11	4	1		
15		100	99	97	91	78	58	36	18	7	2	1	
16			100	98	94	84	68	46	26	12	4	1	
17			100	99	96	89	76	56	36	19	8	3	1
18			100	99	98	93	83	67	46	28	13	5	2

LONGLEAF PINE

2	100	8											
3	100	28	3										
4	100	49	13	1									
5	100	67	28	6									
6	100	81	49	17	3								
7	100	90	66	32	19	2							
8	100	94	78	49	20	5							
9	100	97	86	63	34	12	3						
10	100	98	92	76	49	24	8	2					
11	100	99	95	84	63	37	16	5					
12	100	99	97	90	74	50	26	10	3				
13		100	98	93	81	62	38	18	7	2			
14		100	99	96	88	72	51	29	13	4			

TABLE 161.—*Stand table for southern pines, normal stands, all sites*—Continued

SHORTLEAF PINE

Diameter breast high of average tree in stand, inches	Percentage of all trees in and above given diameter breast-high class												
	2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches	18 inches	20 inches	22 inches	24 inches	26 inches
	P. ct.	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*	*P. ct.*
4	100	55	11	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
5	100	74	32	7	-----	-----	-----	-----	-----	-----	-----	-----	-----
6	100	85	53	20	4	-----	-----	-----	-----	-----	-----	-----	-----
7	100	90	67	35	12	2	-----	-----	-----	-----	-----	-----	-----
8	100	94	78	51	23	7	1	-----	-----	-----	-----	-----	-----
9	100	96	86	64	36	14	4	1	-----	-----	-----	-----	-----
10	100	98	91	75	50	25	9	2	-----	-----	-----	-----	-----
11	100	99	95	83	62	37	16	5	1	-----	-----	-----	-----
12	100	99	97	90	74	50	27	11	3	1	-----	-----	-----
13	-----	100	98	94	82	62	38	19	7	2	-----	-----	-----
14	-----	100	99	96	88	72	51	28	12	4	1	-----	-----
15	-----	-----	100	98	93	82	63	40	21	8	2	1	-----
16	-----	-----	100	99	96	88	73	52	31	14	5	2	-----

SLASH PINE

3	100	28	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
4	100	56	13	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
5	100	74	32	6	-----	-----	-----	-----	-----	-----	-----	-----	-----
6	100	86	53	19	3	-----	-----	-----	-----	-----	-----	-----	-----
7	100	92	69	35	10	1	-----	-----	-----	-----	-----	-----	-----
8	100	96	81	52	20	5	1	-----	-----	-----	-----	-----	-----
9	100	98	89	66	35	12	2	-----	-----	-----	-----	-----	-----
10	100	99	95	80	51	22	6	1	-----	-----	-----	-----	-----
11	-----	100	98	89	66	36	13	3	-----	-----	-----	-----	-----
12	-----	100	99	94	79	52	22	6	1	-----	-----	-----	-----
13	-----	-----	100	98	89	68	36	13	3	-----	-----	-----	-----

TABLE 162.—*Stand table for loblolly pine, average site,*[1] *normal stand*

Age, years	Average diameter breast high	Number of trees per acre in and above given diameter breast-high class											
		2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches	18 inches	20 inches	22 inches	24 inches
	Inches												
15	4.3	1,175	693	188	15	----	----	----	----	----	----	----	----
20	5.7	770	616	331	92	11	----	----	----	----	----	----	----
25	7.1	530	482	360	180	53	8	----	----	----	----	----	----
30	8.4	410	390	332	221	102	31	6	----	----	----	----	----
35	9.5	335	325	298	231	137	60	17	3	----	----	----	----
40	10.4	285	279	262	219	148	77	28	7	----	----	----	----
45	11.3	245	243	233	206	157	96	44	15	3	----	----	----
50	12.2	215	213	209	191	155	108	56	24	6	1	----	----
55	12.9	190	188	184	175	148	108	65	28	10	3	----	----
60	13.6	------	175	172	164	145	116	74	38	16	5	1	----
65	14.3	------	155	153	149	135	112	78	43	20	7	2	----
70	14.9	------	145	144	141	130	110	81	49	25	10	3	----
75	15.4	------	135	134	132	124	108	82	54	28	12	4	1
80	15.9	------	------	130	127	122	108	86	58	32	14	5	2

[1] Site index 92 feet.

TABLE 163.—*Stand table for longleaf pine, average site,*[1] *normal stand*

Age, years	Average diameter breast high	Number of trees per acre in and above given diameter breast-high class									
		2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches	18 inches	20 inches
	Inches										
15	2.8	1,594	383	37							
20	3.8	1,140	513	114	10						
25	4.8	910	582	228	38	3					
30	5.6	722	556	303	87	13					
35	6.3	594	499	321	119	25	3				
40	6.9	510	454	326	153	42	11				
45	7.5	456	420	333	187	68	14	2			
50	8.0	411	386	321	201	82	21	3			
55	8.5	376	361	308	211	102	31	6			
60	8.9	351	337	298	214	112	39	8	1		
65	9.3	322	312	283	216	122	48	13	2		
70	9.7	302	296	275	217	136	60	18	4		
75	10.1	282	276	262	220	147	73	25	6		
80	10.4	267	264	248	211	147	77	29	8	1	
85	10.8	252	249	239	209	154	86	35	10	2	
90	11.1	242	240	232	206	157	94	41	13	3	
95	11.4	232	230	223	200	158	97	46	16	4	
100	11.8	222	220	215	198	160	107	53	21	6	1

[1] Site index 71 feet.

TABLE 164.—*Stand table for shortleaf pine, average site,*[1] *normal stand*

Age, years	Average diameter breast high	Number of trees per acre in and above given diameter breast-high class									
		2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches	18 inches	20 inches
	Inches										
15	2.6	2,774	583	----	----	----	----	----	----	----	----
20	3.5	1,993	877	100	----	----	----	----	----	----	----
25	4.5	1,501	1,006	330	38	1	----	----	----	----	----
30	5.4	1,076	850	441	118	13	----	----	----	----	----
35	6.2	792	681	451	182	40	5	----	----	----	----
40	7.0	634	571	425	222	76	15	1	----	----	----
45	7.6	523	481	387	235	99	26	4	----	----	----
50	8.2	446	419	357	241	116	36	8	----	----	----
55	8.8	391	375	328	242	133	51	13	2	----	----
60	9.3	350	340	308	238	144	63	18	4	----	----
65	9.8	320	310	288	234	150	74	26	6	----	----
70	10.3	289	283	266	225	156	84	35	9	2	----
75	10.7	264	261	248	214	158	90	37	11	2	----
80	11.1	244	242	232	205	159	95	44	15	3	----
85	11.5	228	226	219	198	157	100	50	18	5	----
90	11.9	213	211	207	190	153	104	55	21	6	1
95	12.3	198	196	192	180	152	109	61	26	8	2
100	12.7	----	188	184	175	150	113	68	30	11	3

[1] Site index 69.5 feet.

TABLE 165.—*Stand table for slash pine, average site,*[1] *normal stand*

Age, years	Average diameter breast high	Number of trees per acre in and above given diameter breast-high class							
		2 inches	4 inches	6 inches	8 inches	10 inches	12 inches	14 inches	16 inches
	Inches								
15	4.2	1,360	816	218	19	-------	-------	-------	-------
20	5.0	1,065	788	341	64	4	-------	-------	-------
25	6.0	805	692	427	153	24	2	-------	-------
30	7.1	595	553	422	220	65	11	-------	-------
35	8.0	450	432	364	234	90	22	3	-------
40	8.8	370	363	326	237	118	37	7	-------
45	9.5	320	317	298	237	138	54	13	2
50	10.1	290	287	276	235	154	70	19	3
55	10.6	-------	265	257	228	162	82	26	5
60	11.0	-------	245	240	218	162	88	32	6

[1] Site index 81 feet.

MISCELLANEOUS TABLES

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TABLE 166.—*Comparison of yields per acre of southern pines in cubic feet, cords, and board feet (international rule)*

SITE INDEX 50

Age, years	Yields in cubic feet (peeled wood) of—				Yields in cords (rough wood) of—				Yields in board feet (international rule, ⅛-inch kerf) of—			
	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash
20		600	1,020			4						
40		1,400	2,720			17	33			2,500	5,000	
50		1,750	3,320			21	43			5,000	9,900	
60		2,100	3,740			25	48			7,000	14,900	
80		2,550	4,300			31	53			11,000	22,000	
100		2,900	4,650			35	56			14,500	26,000	
SITE INDEX 60												
20	1,350	950	1,350	1,800	12	8	12	20		500		500
40	3,000	2,200	3,520	3,050	35	27	46	40	10,000	6,000	10,300	8,500
50	3,600	2,800	4,280	3,500	41	34	54	45	15,000	10,500	18,300	13,000
60	3,950	3,350	4,810	3,800	46	40	60	48	19,000	14,500	24,500	16,000
80	4,350	4,100	5,600		51	49	68		24,000	21,000	32,000	
100		4,600	6,060			55	72			27,000	36,600	
SITE INDEX 70												
20	1,650	1,325	1,670	2,250	17	14	18	28	1,500	1,000	250	2,000
40	3,700	3,100	4,380	3,850	42	39	56	49	16,000	11,000	17,800	15,000
50	4,350	3,950	5,320	4,400	50	48	66	55	22,000	17,500	27,200	20,500
60	4,750	4,650	6,000	4,800	55	55	73	59	26,500	23,500	33,500	24,000
80	5,250	5,750	6,930		62	67	83		32,000	33,500	42,000	
100		6,450	7,520			76	89			40,000	47,800	

SITE INDEX 80

20	1,950	1,700	2,000	2,700	22	20	25	35	3,000	2,000	1,600	4,000
40	4,400	4,000	5,180	4,600	51	49	65	58	22,000	17,000	25,500	22,000
50	5,200	5,050	6,330	5,300	60	61	77	65	29,500	25,500	35,600	28,000
60	5,700	5,950	7,120	5,750	66	70	85	69	34,500	33,500	42,600	32,000
80	6,250	7,350	8,200	-------	73	85	97	-------	40,500	45,500	52,000	------
100	-------	8,300	8,900	-------	-------	97	105	-------	-------	54,000	58,500	-------

SITE INDEX 90

20	2,300	2,100	2,260	3,100	27	26	30	41	5,000	3,000	3,800	6,500
40	5,200	4,900	6,000	5,300	61	59	73	66	28,500	23,000	33,400	28,500
50	6,150	6,200	7,300	6,050	71	72	87	73	37,500	33,500	44,250	35,000
60	6,700	7,350	8,230	6,550	78	84	98	78	43,000	43,500	52,250	39,500
80	7,400	9,000	9,470	-------	85	103	112	-------	50,000	58,000	62,800	-------
100	-------	10,200	10,270	-------	-------	117	121	-------	-------	68,000	70,100	-------

SITE INDEX 100

20	2,750	2,400	2,560	3,500	32	30	33	46	7,500	5,000	7,600	10,500
40	6,100	5,600	6,860	5,950	71	66	82	72	35,500	29,000	41,800	34,500
50	7,200	7,150	8,360	6,750	84	82	99	81	45,500	42,500	53,800	41,000
60	7,950	8,500	9,430	7,350	92	96	111	86	52,500	52,500	62,500	45,500
80	8,700	10,350	10,850	-------	100	118	128	-------	60,500	68,500	74,800	-------
100	-------	11,750	11,780	-------	-------	133	139	-------	-------	80,000	81,600	-------

SITE INDEX: AVERAGE FOR EACH SPECIES [1]

20	2,345	1,362	1,670	2,740	28	15	18	36	5,250	1,100	250	4,250
40	5,290	3,190	4,380	4,670	62	40	56	59	29,200	11,600	17,800	22,650
50	6,255	4,060	5,320	5,375	72	49	66	66	38,300	18,300	27,200	28,700
60	6,825	4,780	6,000	5,830	79	56	73	70	43,950	24,500	33,500	32,750
80	7,530	5,910	6,930	-------	86	69	83	-------	51,050	34,700	42,000	-------
100	-------	6,635	7,520	-------	-------	78	89	-------	-------	41,400	47,800	-------

[1] Average site index for loblolly pine is 91-foot, for longleaf pine, 71-foot, for shortleaf pine, 70-foot, and for slash pine, 81-foot.

TABLE 167.—*Comparison of average yearly growth per acre of southern pines in cubic feet, cords, and board feet (international rule)*

SITE INDEX 50

Age, years	Growth in cubic feet (peeled wood) of—				Growth in cords (rough wood) of—				Growth in board feet (international rule, ⅛-inch kerf) of—			
	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash
20		30	51			0.20						
40		35	68			.42	0.82			62	125	
50		35	67			.42	.86			100	198	
60		35	62			.42	.80			117	248	
80		32	54			.39	.66			138	275	
100		29	46			.35	.56			145	260	

SITE INDEX 60

20	68	48	68	90	0.60	0.40	0.60	1.00		25		25
40	75	55	88	76	.88	.68	1.15	1.00	250	150	258	212
50	72	56	86	70	.82	.68	1.08	.90	300	210	366	260
60	66	56	81	63	.77	.67	1.00	.80	317	242	408	267
80	54	51	70		.64	.61	.85		300	262	400	
100		46	61			.55	.72			270	366	

SITE INDEX 70

20	82	66	84	112	0.85	0.70	0.90	1.40	75	50	12	100
40	92	78	110	96	1.05	.98	1.40	1.22	400	275	445	375
50	87	79	106	88	1.00	.96	1.32	1.10	440	350	544	410
60	79	78	100	80	.92	.92	1.22	.98	442	392	558	400
80	66	72	87		.78	.84	1.04		400	419	525	
100		64	75			.76	.89			400	478	

SITE INDEX 80

20	98	85	100	135	1.10	1.00	1.25	1.75	150	100	80	200
40	110	100	130	115	1.28	1.22	1.62	1.45	550	425	638	550
50	104	101	127	106	1.20	1.22	1.54	1.30	590	510	712	560
60	95	99	119	96	1.10	1.17	1.42	1.15	575	558	710	633
80	78	92	102	-------	.91	1.06	1.21	-------	506	569	650	-------
100	-------	83	89	-------	-------	.97	1.05	-------	-------	540	585	-------

SITE INDEX 90

20	115	105	113	155	1.35	1.30	1.50	2.05	250	150	190	325
40	130	122	150	132	1.52	1.48	1.82	1.65	712	575	835	712
50	123	124	146	121	1.42	1.44	1.74	1.46	750	670	885	700
60	112	122	137	109	1.30	1.40	1.63	1.30	717	725	871	658
80	92	112	118	-------	1.06	1.29	1.40	-------	625	725	785	-------
100	-------	102	103	-------	-------	1.17	1.21	-------	-------	680	701	-------

SITE INDEX 100

20	138	120	128	175	1.60	1.50	1.65	2.30	375	250	380	525
40	152	140	172	149	1.78	1.65	2.05	1.80	888	725	1,045	862
50	144	143	167	135	1.68	1.64	1.98	1.62	910	850	1,076	820
60	132	142	157	122	1.53	1.60	1.85	1.43	875	875	1,042	758
80	109	129	136	-------	1.25	1.48	1.60	-------	756	856	935	-------
100	-------	118	118	-------	-------	1.33	1.39	-------	-------	800	816	-------

SITE INDEX: AVERAGE FOR EACH SPECIES [1]

20	117	68	84	137	1.38	.73	.90	1.78	262	55	12	212
40	132	80	110	117	1.55	1.00	1.40	1.47	730	290	445	566
50	125	81	106	108	1.45	.99	1.32	1.32	766	366	544	574
60	114	80	100	97	1.32	.94	1.22	1.16	733	409	558	546
80	94	74	87	-------	1.08	.86	1.04	-------	638	434	525	-------
100	-------	66	75	-------	-------	.78	.89	-------	-------	414	478	-------

[1] Average site index for loblolly pine is 91-foot; for longleaf pine, 71-foot; for shortleaf pine, 70-foot; and for slash pine, 81-foot.

TABLE 168.—*Comparison of basal areas, trees per acre, and average diameter breast high of southern pines for stand 2 inches diameter breast high and over*

SITE INDEX 50

Age, years	Basal area per acre of—				Trees per acre of—				Average diameter breast high of—			
	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash
	Square feet	*Square feet*	*Square feet*	*Square feet*	*Number*	*Number*	*Number*	*Number*	*Inches*	*Inches*	*Inches*	*Inches*
20		64	139			1,410	3,425			2.8	2.5	
40		88	162			625	1,085			5.1	5.1	
50		95	162			505	760			5.9	6.1	
60		100	162			430	590			6.6	6.9	
80		106	162			335	420			7.8	8.3	
100		109	162			275	315			8.8	9.4	

SITE INDEX 60

20	121	79	142	143	1,600	1,290	2,520	2,035	3.6	3.3	2.9	3.5
40	147	108	166	155	585	575	815	710	6.8	6.0	6.0	6.3
50	152	118	166	157	440	465	570	550	7.9	7.0	7.2	7.2
60	156	124	166	158	360	395	445	470	8.9	7.8	8.2	7.9
80	160	131	166		275	305	315		10.4	9.1	9.8	
100		135	166			250	235			10.3	11.1	

SITE INDEX 70

20	125	92	145	146	1,185	1,150	1,965	1,445	4.3	3.8	3.5	4.2
40	151	127	169	159	435	515	625	500	8.1	6.8	7.0	7.5
50	157	138	169	161	325	415	440	390	9.4	7.9	8.3	8.6
60	160	145	169	162	270	355	345	335	10.6	8.8	9.4	9.4
80	165	153	169		205	270	240		12.3	10.3	11.2	
100		157	169			225	185			11.7	12.8	

SITE INDEX 80

20	129	102	147	148	950	1,050	1,495	1,090	5.0	4.3	4.1	4.9
40	156	140	171	161	345	465	485	380	9.2	7.6	8.0	8.7
50	162	152	171	163	255	375	335	295	10.7	8.8	9.5	10.0
60	165	160	171	164	210	315	260	250	12.0	9.8	10.8	10.8
80	170	169	171	----	160	240	185	----	14.0	11.5	12.9	----
100	----	173	171	----	----	200	145	----	----	13.0	14.7	----

SITE INDEX 90

20	133	109	148	149	790	910	1,080	835	5.6	4.7	5.0	5.6
40	162	150	173	163	290	405	345	295	10.2	8.3	9.4	10.0
50	167	162	173	165	220	330	245	220	12.0	9.6	11.2	11.4
60	171	170	173	166	180	275	185	195	13.4	10.7	12.8	12.5
80	176	180	173	----	135	210	140	----	15.6	12.5	15.3	----
100	----	186	173	----	----	175	105	----	----	14.2	17.4	----

SITE INDEX 100

20	138	114	149	150	690	790	740	625	6.1	5.2	6.0	6.4
40	168	158	174	164	255	355	235	225	11.2	9.0	11.3	11.4
50	174	170	174	166	190	285	170	175	13.1	10.5	13.5	13.1
60	178	179	174	167	155	240	130	150	14.6	11.7	15.3	14.2
80	182	189	174	----	115	185	90	----	17.1	13.7	18.5	----
100	----	194	174	----	----	155	70	----	----	15.4	21.2	----

SITE INDEX: AVERAGE FOR EACH SPECIES [1]

20	134	93	145	148	780	1,140	1,965	1,064	5.6	3.9	3.7	5.1
40	163	128	169	161	286	510	625	372	10.2	6.8	7.0	8.9
50	168	139	169	163	217	411	440	288	11.9	7.9	8.4	10.2
60	172	146	169	164	178	351	345	244	13.3	8.7	9.5	11.1
80	177	155	169	----	133	267	240	----	15.6	10.3	11.4	----
100	----	159	169	----	----	222	185	----	----	11.5	12.9	----

[1] Average site index for loblolly pine is 91-foot, for longleaf pine, 71-foot, for shortleaf pine, 70-foot, and for slash pine, 81-foot.

TABLE 169.—*Comparison of basal areas, trees per acre, and average diameter breast high of southern pines for stand 4 inches diameter breast high and over*

Age, years	Basal area per acre of—				Trees per acre of—				Average diameter breast high of—			
	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash
	Square feet	*Square feet*	*Square feet*	*Square feet*	*Number*	*Number*	*Number*	*Number*	*Inches*	*Inches*	*Inches*	*Inches*
SITE INDEX 50												
20		35	66			295	440			4.7	4.1	
40		81	156			435	815			5.9	5.9	
50		91	159			410	630			6.5	6.8	
60		98	160			365	510			7.1	7.5	
80		106	161			305	380			8.0	8.8	
100		108	161			260	300			8.9	9.9	
SITE INDEX 60												
20	92	55	79	99	670	400	530	835	4.9	5.0	4.3	4.7
40	146	104	163	151	545	475	680	615	7.0	6.6	6.6	6.7
50	152	116	164	155	430	410	505	505	8.0	7.3	7.6	7.5
60	156	123	165	156	360	360	410	445	8.9	8.0	8.5	8.1
80	160	131	165		275	290	300		10.4	9.3	10.0	
100		135	166			245	230			10.3	11.3	
SITE INDEX 70												
20	107	75	102	121	675	500	780	840	5.2	5.2	4.6	5.1
40	151	124	167	157	430	450	545	475	8.2	7.2	7.4	7.7
50	157	137	168	160	325	380	405	375	9.4	8.1	8.6	8.8
60	161	145	168	161	270	330	330	325	10.6	8.9	9.7	9.4
80	165	153	169		205	265	235		12.3	10.4	11.5	
100		157	169			225	180			11.6	13.0	

SITE INDEX 80

20	117	89	123	134	665	580	860	765	5.6	5.5	5.0	5.6
40	156	139	170	160	345	420	435	370	9.2	7.8	8.3	8.8
50	162	152	170	163	255	355	320	290	10.7	8.9	9.7	10.0
60	166	160	171	164	210	310	255	250	12.0	9.9	11.0	10.8
80	170	169	171	-------	160	240	185	-------	14.0	11.6	13.0	-------
100	-------	173	171	-------	-------	200	145	-------	-------	12.8	14.7	-------

SITE INDEX 90

20	126	98	141	141	630	580	800	665	6.1	5.7	5.8	6.1
40	161	149	172	162	290	380	330	290	10.2	8.4	9.8	10.1
50	167	162	173	165	220	320	240	220	12.0	9.6	11.5	11.4
60	171	171	173	166	175	275	180	195	13.4	10.7	12.9	12.5
80	176	181	173	-------	130	215	140	-------	15.6	12.6	15.3	-------
100	-------	186	173	-------	-------	175	105	-------	-------	14.1	17.4	-------

SITE INDEX 100

20	134	106	146	146	595	555	600	545	6.5	6.0	6.9	6.8
40	168	157	174	164	255	336	230	225	11.2	9.1	11.7	11.4
50	174	170	174	166	195	282	165	175	13.1	10.5	13.6	13.1
60	178	179	174	167	155	240	130	150	14.6	11.7	15.4	14.2
80	183	189	174	-------	115	185	90	-------	17.1	13.7	18.5	-------
100	-------	194	174	-------	-------	150	70	-------	-------	15.4	21.2	-------

SITE INDEX: AVERAGE FOR EACH SPECIES [1]

20	127	76	102	135	626	508	780	755	6.1	5.2	4.9	5.7
40	162	126	167	160	286	447	545	362	10.2	7.2	7.5	9.0
50	168	138	168	163	218	378	405	283	11.9	8.2	8.7	10.3
60	172	146	168	164	173	328	330	244	13.5	9.0	9.7	11.1
80	177	155	169	-------	128	262	235	-------	15.9	10.4	11.5	-------
100	-------	159	169	-------	-------	222	180	-------	-------	11.5	13.1	-------

[1] Average site index for loblolly pine is 91-foot; for longleaf pine, 71-foot; for shortleaf pine, 70-foot; and for slash pine 81-foot.

TABLE 170.—*Comparison of basal areas, trees per acre, and average diameter breast high of southern pines for stand 7 inches diameter breast high and over*

SITE INDEX 50

Age, years	Basal area per acre of—				Trees per acre of—				Average diameter breast high of—			
	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash	Loblolly	Longleaf	Shortleaf	Slash
	Square feet	*Square feet*	*Square feet*	*Square feet*	*Number*	*Number*	*Number*	*Number*	*Inches*	*Inches*	*Inches*	*Inches*
20	-------	1	-------	-------	-------	-------	-------	-------	-------	7.1	-------	-------
40	-------	34	59	-------	-------	100	175	-------	-------	7.8	7.7	-------
50	-------	55	100	-------	-------	160	260	-------	-------	8.1	8.1	-------
60	-------	69	124	-------	-------	185	295	-------	-------	8.4	8.5	-------
80	-------	88	147	-------	-------	200	290	-------	-------	9.0	9.4	-------
100	-------	97	155	-------	-------	190	255	-------	-------	9.7	10.2	-------
SITE INDEX 60												
20	8	6	-------	11	30	15	-------	40	7.2	7.3	-------	7.1
40	103	65	98	101	265	185	265	275	8.4	8.1	8.1	8.2
50	128	88	134	124	280	230	305	305	9.1	8.6	8.7	8.6
60	142	103	150	136	270	235	305	320	9.8	9.0	9.3	9.0
80	154	120	160	-------	235	220	260	-------	11.0	10.0	10.5	-------
100	-------	127	163	-------	-------	200	210	-------	-------	10.9	11.6	-------
SITE INDEX 70												
20	21	13	6	27	85	35	20	85	7.4	7.4	7.1	7.3
40	129	91	132	130	290	235	315	305	9.2	8.5	8.6	8.8
50	146	114	153	147	260	255	305	300	10.2	9.1	9.4	9.4
60	155	128	161	154	230	245	280	285	11.1	9.8	10.2	10.0
80	163	145	166	-------	190	220	220	-------	12.6	11.0	11.7	-------
100	-------	152	168	-------	-------	200	180	-------	-------	12.1	13.0	-------

SITE INDEX 80

20	41	23	19	47	135	70	70	150	7.6	7.5	7.3	7.5
40	144	116	152	148	270	265	315	295	10.0	8.9	9.2	9.5
50	157	135	163	158	225	260	275	260	11.3	9.8	10.4	10.4
60	163	148	167	161	195	245	235	230	12.4	10.5	11.3	11.1
80	169	164	170	-------	155	215	180	-------	14.1	12.0	13.2	-------
100	-------	170	171	-------	-------	185	145	-------	-------	13.2	14.8	-------

SITE INDEX 90

20	61	35	50	74	190	110	150	220	7.8	7.7	7.6	7.8
40	155	132	165	158	245	265	280	260	10.8	9.4	10.3	10.5
50	165	150	170	163	200	255	220	210	12.3	10.3	11.7	11.6
60	171	163	172	165	170	230	175	185	13.7	11.3	13.1	12.6
80	176	179	173	-------	130	195	135	-------	15.7	12.9	15.4	-------
100	-------	186	173	-------	-------	170	105	-------	-------	14.3	17.4	-------

SITE INDEX 100

20	79	49	88	100	220	140	245	255	8.1	7.8	8.1	8.2
40	165	143	171	162	225	255	215	210	11.6	9.9	11.8	11.6
50	173	161	173	166	180	235	160	170	13.4	11.0	13.7	13.1
60	178	174	174	167	155	215	130	150	14.8	12.1	15.4	14.2
80	183	188	174	-------	115	180	90	-------	17.1	14.0	18.3	-------
100	-------	194	174	-------	-------	155	70	-------	-------	15.4	20.8	-------

SITE INDEX: AVERAGE FOR EACH SPECIES [1]

20	63	14	6	50	193	38	20	157	7.7	8.2	7.4	7.6
40	156	94	132	149	243	238	315	292	10.8	8.5	8.8	9.7
50	166	116	153	158	198	256	305	255	12.4	9.1	9.6	10.7
60	172	130	161	161	168	245	280	226	13.7	9.9	10.3	11.4
80	177	147	166	-------	128	220	220	-------	15.9	11.1	11.8	-------
100	-------	154	168	-------	-------	198	180	-------	-------	11.9	13.1	-------

[1] Average site index for loblolly pine is 91-foot; for longleaf pine, 71-foot, for shortleaf pine, 70-foot; and for slash pine, 81-foot.

TABLE 171.—*Converting factors, tree volumes, cubic feet to cords, second-growth loblolly pine*

Size of tree: Diameter breast-high, inches	Converting factor: cubic feet per cord, rough or peeled	Size of tree: Diameter breast-high, inches	Converting factor: cubic feet per cord, rough or peeled
4	84	12	97
5	88	13	97
6	90	14	98
7	92	15	98
8	94	16	98
9	95	17	98
10	96	18	98
11	97		

This table is based on the measurement of 117 trees, which were cut into 4-foot lengths. Wood from trees of the same diameter was stacked separately and the stacks measured in cords. The same wood was later restacked and remeasured after peeling, but the data were not sufficient to reveal any significant differences between the number of cubic feet of peeled and unpeeled wood to a cord. All wood was used above a 1-foot stump to a top diameter of 3 inches inside the bark. It is probable that the figures given are the maximum, since stacking was done with more than ordinary care. Because the cord is at best an extremely rough unit, varying greatly with the care used in limbing the wood and in stacking, the converting factors for loblolly pine can probably be used with safety for the other southern pines also.

TABLE 172.—*Relation of stump diameter inside bark to breast-height diameter, southern pines*

Diameter breast high, inches	Diameter of 1-foot stump, inside bark of—			
	Loblolly pine	Longleaf pine	Shortleaf pine	Slash pine
	Inches	*Inches*	*Inches*	*Inches*
2	2.2	1.6	1.8	2.0
3	3.2	2.6	2.7	3.1
4	4.2	3.7	3.6	4.2
5	5.2	4.7	4.6	5.2
6	6.3	5.8	5.7	6.3
7	7.3	6.8	6.7	7.3
9	8.4	7.8	7.8	8.4
9	9.4	8.9	8.8	9.4
10	10.5	9.9	9.9	10.4
11	11.5	10.9	10.9	11.3
12	12.5	12.0	12.0	12.3
13	13.5	13.0	13.0	13.3
14	14.4	14.1	14.1	14.2
15	15.4	15.1	15.2	15.1
16	16.4	16.1	16.2	16.1
17	17.3	17.2	17.2	17.0
18	18.3	18.2	18.3	17.9
19	19.3	19.2	19.4	18.9
20	20.2	20.3	20.4	19.8
21	21.2	----------	21.5	20.7
22	22.1	----------	22.5	21.6
23	23.1	----------	23.6	22.6
24	24.0	----------	24.6	23.5
25	25.0	----------	25.7	----------
26	25.9	----------	26.7	----------

TABLE 173.—*International log rule*

Diameter of log, inches	Length of log, in feet						
	8	10	12	14	16	18	20
	Volume in board feet						
5	5	5	10	10	15	15	20
6	10	10	15	20	20	25	30
7	15	15	20	25	30	35	45
8	20	25	30	35	45	50	60
9	25	30	40	50	55	65	75
10	30	40	50	60	70	85	95
11	40	50	65	75	90	105	115
12	50	65	75	90	105	125	140
13	60	75	90	110	130	145	165
14	70	90	110	130	150	175	195
15	80	105	125	150	175	200	225
16	95	120	145	170	200	230	260
17	105	135	165	195	225	260	295
18	120	155	185	220	255	295	330
19	135	175	210	250	290	330	370
20	150	195	235	275	320	365	410
21	170	215	260	305	355	405	455
22	185	235	285	340	390	445	500
23	205	260	315	370	430	490	550
24	225	285	345	405	470	535	600
25	245	310	375	445	510	580	650
26	265	335	405	480	555	630	705
27	290	365	440	520	600	680	765
28	310	395	475	560	645	735	825
29	335	425	510	605	695	790	885
30	360	455	550	645	745	845	950
31	385	485	590	695	800	905	1,015
32	410	520	630	740	850	965	1,080
33	440	555	670	790	905	1,030	1,150
34	470	590	715	840	965	1,095	1,225
35	495	625	755	890	1,025	1,160	1,300
36	525	665	800	945	1,085	1,230	1,375

Saw kerf, one-eighth inch.
For one-fourth inch saw kerf deduct 9.5 per cent from the tabular values.